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U.S. Department of Transportation
Urban Mass Transportation Administration

Route - Specific Transit Marketing in Minneapolis/ St. Paul, MN

UMTA/TSC Evaluation Series

Final Report
October 1985

MAY

RIDER'S DIGEST

Introducing A Bus Program You Can't Pass Up.

Congratulations! Your neighborhood and its bus route have been selected as part of a test program. You'll be eligible for exclusive benefits – such as The When-You-Need-It© Card, which gives you a free bus ride in case of emergency. (No strings attached.

You can also purchase The Passport© and get six rides anywhere on the system for the price of five. See the inside of the Digest for your free When You Need It© Card and for more information on the Passport©.

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You told us you want courteous drivers and clean, attractive buses that appear on time. We're working to give you the best.

You've wanted easier-to-buy bus passes; at a savings. The Passport© can be purchased easily (see page 4 for information on how to get it), and it gives you 6 rides for the price of 5.

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THE PASSPORT©

Buy five rides. And get one free.

UMTA Technical Assistance Program

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16. Abstract

The Minneapolis/St. Paul Transit Marketing Demonstration involved the administration of a combination of marketing techniques on five selected transit routes. The approach employed differed from most previous marketing demonstrations in that 1) pricing mechanisms were used in conjunction with direct mail information dissemination, and 2) the overall approach was route-specific, rather than system-wide, in focus. The marketing "treatment" period lasted from February to May 1984, although free and reduced fare coupons distributed/sold during this period were valid through the end of that year. The actual marketing strategies tested in the demonstration were as follows: 1) two direct mailings of a newsletter (called Rider's Digest) containing route-specific service information and a single-use free fare coupon (the When-You-Need-It Card) to households along each of the five treatment routes; 2) availability of prepaid fare discount cards (six rides for $3.75 -- the price of five peak-hour rides), called Passports, for purchase at designated retail outlets along four of the routes; and 3) availability of the Passport for purchase through the mail by households along the fifth route. Roughly 110,000 Rider's digests were mailed out (55,000 in each mailing).

Based on a comparison of the results of a post-treatment survey to those of a pre-treatment survey, the demonstration marketing strategies had no apparent effect on target corridor residents' knowledge -- and usage -- of transit. However, the level of corridor residents' familiarity with the local transit service was generally very high before the demonstration began. The demonstration also had no significant impact on weekday and Saturday treatment route ridership, although it may have had a positive effect on Sunday/holiday ridership. The general absence of an impact on ridership is corroborated by the survey results, which revealed that, overall, respondents used transit no more often following the demonstration than before it.

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PREFACE

The Route-Specific Transit Marketing Demonstration in Minneapolis/St. Paul, Minnesota was funded, in part, by the U.S. Department of Transportation (DOT) under the Urban Mass Transportation Administration's (UMTA) Service and Methods Demonstration (SMD) Program. As part of that program, Multisystems, Inc., under contract to the U.S. DOT's Transportation Systems Center (TSC), has prepared this Final Evaluation Report.

This report is based on analyses of data collection -- and information provided -- by the Metropolitan Transit Commission (MTC), the project grantee. The author wishes to thank the following individuals for their assistance and cooperation in this effort:

- Roger Downey, Manager of Marketing of MTC and local project manager
- Michael Hughes of MTC, original project manager
- Rosemary Booth of TSC, evaluation manager
- Stewart McKeown of UMTA, project manager

The author would also like to thank the following Multisystems staff members: James Wensley, who assisted in the data analyses and collection of background material; Betsy Levering and Lisa Houck, who prepared the graphics, Judith Ensko, Linda Miller, Debbie Burns and Denise Kangley, who typed the report; and Gary Ruprecht, who provided helpful comments and suggestions in writing the report.

METRIC CONVERSION FACTORS

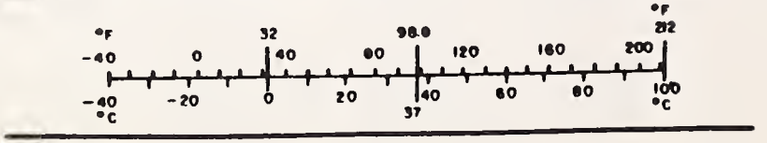
Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
		AREA		
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
		MASS (weight)		
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
		VOLUME		
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
		TEMPERATURE (exact)		
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price $2.25, SD Catalog No. C13.10:286.

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
		AREA		
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
		MASS (weight)		
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
		VOLUME		
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	35	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
		TEMPERATURE (exact)		
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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EXECUTIVE SUMMARY

INTRODUCTION

The Minneapolis/St. Paul Route-Specific Transit Marketing Demonstration involved the use of a combination of marketing techniques on five bus transit routes. The approach employed differed from most previous marketing demonstrations in that 1) pricing mechanisms were used in conjunction with direct mail information dissemination, and 2) the overall approach was route-specific, rather than system-wide, in focus. The marketing "treatment" period lasted from February to May 1984, although free and reduced fare coupons distributed or sold during this period were valid through the end of the year.

The marketing strategies tested in the demonstration were as follows:

- two direct mailings of a newsletter (called Rider's Digest) containing route-specific service information and a single-use free fare coupon (the When-You-Need-It Card) to households along each of the five treatment routes;
- availability of prepaid fare discount cards (six rides for $3.75, the price of five peak-hour rides), called Passports, for purchase at designated retail outlets along four of the routes; and
- availability of the Passport for purchase through the mail by households along the fifth route.

Approximately 110,000 Rider's Digests were mailed out, 55,000 in each mailing. A post-treatment telephone survey assessed a sample of recipients' responses to the Rider's Digest. The survey also measured attitudes toward -- and use of -- transit in general, and the level of usage of the two types of fare coupons. It was also intended that use of the coupons be measured through their return to MTC following collection by MTC drivers. Unfortunately, the latter procedure did not provide an accurate indication of the level of usage of either the Passport or the When-You-Need It Card, due to a very sporadic collection effort on the part of the drivers.

The overall goal of the demonstration was to generate increased ridership in a cost-effective manner. Within this goal, specific objectives included: 1) to demonstrate the

effectiveness of a route-specific marketing approach in increasing ridership and knowledge about the target routes; and 2) to determine the relative cost-effectiveness of various combinations of marketing strategies in reaching the intended market and in increasing ridership. The degree to which these goals and objectives were met has been assessed in this evaluation report; the key findings and their transferability to other locations are summarized below.

IMPACT ON KNOWLEDGE AND USAGE OF TRANSIT

Based on a comparison of "before" and "after" survey responses, the demonstration marketing strategies had no apparent effect on corridor residents' knowledge and usage of transit. For instance, the percentage of all survey respondents who "know that a bus runs near their home" was significantly lower in the after than in the before survey for two of the routes and virtually the same in the two surveys for the other four routes. The percentage who "know enough about where the bus goes to ride" was significantly lower in the after than in the before survey for one of the routes and virtually the same for the other five routes. The fact that the level of familiarity with the local transit service among corridor residents was generally very high before the demonstration began was the most likely explanation of this result.

With regard to the effectiveness of the marketing strategies at reaching the intended market, the percentage of survey respondents remembering receiving the Rider's Digest was around 60 percent for all but one of the treatment routes, where the percentage was 33 percent. However, between 84 and 97 percent of those who recalled seeing the newsletter remembered receiving only one of the two issues. This was perhaps caused, in part, by the fact that some people apparently received only one copy (due to an addressing/mail delivery problem), but was perhaps more likely due to the similar appearance of the two editions.

Over 90 percent of those who recalled seeing the Rider's Digest at least "glanced through it"; one-third "read it thoroughly." However, less than one-third of those remembering the newsletter "found the enclosed route map and schedule helpful." Less than three percent said that they actually "rode the bus to new destinations" following receipt of the Rider's Digest.

DISTRIBUTION AND USAGE OF COUPONS

A total of 8900 Passports were sold during the demonstration: 7787 by retailers along four of the routes, 1113 through mail requests (Route 5). Based on a survey of the retailers, 40-60 percent of those purchasing the coupons were

repeat buyers; thus, the number of persons buying the Passport was considerably smaller than the number sold. The reasons given by household survey respondents for not buying a Passport were as follows: "do not use the bus enough (or at all)," "buy the monthly pass," and "senior citizen" (and therefore eligible for discount fare). Very few of the survey respondents purchased the Passport, but those who did reported their reasons for doing so as follows: "no need for exact change," "systemwide availability," "the free-ride bonus," and "the low cost."

Only 1344 of the coupons were returned to MTC by drivers. Since these were not tabulated by time of day and most were not tabulated by date, it was impossible to determine temporal patterns of usage of the coupons. However, nearly 900 of the coupons were tabulated by the route on which they were collected, following their sixth use, providing some indication of their geographic distribution. The dispersion was noteworthy: approximately 45 percent of these Passports were turned in on non-treatment routes, and at least one coupon showed up on nearly 70 percent of the 75 routes in the MTC system.

Whereas virtually all of the Passports were presumed used, because they had to be purchased, apparently relatively few of the When-You-Need-It-Cards were used. It is impossible to determine the actual number used, since only three percent (1729) of the 55,000 sent out were turned in to the MTC. Among survey respondents, less than 17 percent reported that they had used the cards, although roughly two-thirds of those persons who had not yet used them (and who recalled receiving them) reported that they "still had it" in their possession.*

As for generating new transit ridership, less than three percent of those survey respondents who used the When-You-Need-It Card reported that they used it "for a trip they would not otherwise have made." In terms of geographic distribution, approximately 1200 of the cards were tabulated by route. The dispersion of the When-You-Need-It Cards was apparently even greater than that of the Passports, as 55 percent of those tabulated showed up on non-treatment routes; the cards were used on all but 11 routes.

IMPACTS ON PARTICIPATING RETAILERS

The participation of retail establishments and restaurants, through the sale of the Passport, was a key element of the demonstration marketing approach; 45 retailers and restaurants took part. The most important reason given by

---

* The survey was taken in May, and the cards could be used through the end of 1984.

retailers for their participation was "to generate more customer traffic," with other key attractions being the free advertisements in the Rider's Digest and the opportunity to "provide a service for customers." While over 60 percent of those responding to the retailer survey reported that the Passport program did not lead to an actual increase in their business, nearly 70 percent reported that they liked the program because it increased store traffic or was generally "good for business." The other 30 percent said they liked the program for more altruistic reasons -- e.g., it increased bus use, simplified the fare, or provided a "community service." Overall, the participating retailers were pleased with the Passport program. Since the time required to sell Passports was reportedly minimal, and since they were paid a small fee to take part, any perceived benefit apparently made their participation worthwhile. Over 90 percent of the retailer survey respondents expressed at least tentative willingness to take part in other similar MTC programs.

IMPACTS ON RIDERSHIP

Due to normal ridership fluctuation among the different routes, as well as the presence of external factors, it was difficult to isolate the effect of the demonstration strategies on individual routes. A time series regression model was employed to estimate the relative impact of various factors on ridership. This analysis failed to show any clear impact of the demonstration strategies on ridership. Where there was an increase in ridership following the demonstration, the model found it to be at least as significant on control routes as on treatment routes. While it is reasonable to assume that the demonstration had some effect on control routes,* it is not clear why the impact would have been as strong as on treatment routes.

The one area where the demonstration may well have had an impact was on Sunday/holiday ridership. The Sunday/holiday ridership increases on treatment routes during and after the treatment period were generally of a greater magnitude than those on the control routes. In observing simple ridership trends, there would also appear to have been some weekday impact (short-term) on two of the treatment routes, which experienced substantial growth during the first month of the treatment period. However, in examining the results of regression analysis, coupled with results of the household survey and a comparison with the previous year's ridership trends, the extent of the demonstration's impact becomes unclear; for instance, the post-treatment survey indicated

* This is suggested by the widespread distributon of coupon usage, for one thing.

that, on balance, respondents along those two corridors used transit less often following the demonstration than before it.

Overall, while the demonstration strategies may have produced some impact on Sundays, and may have temporarily boosted ridership on a couple of routes at other times, survey results, regression analysis results, and comparison with the previous year's ridership trends suggest that those strategies probably had no significant impact on treatment route ridership.

ECONOMIC IMPACTS

Expenditures on this project were $170,225, of which 80 percent was paid by UMTA. Half of the total was spent on project development activities, the other half on the operational aspects of the project. Approximately 60 percent of the operating costs were attributable to the production, printing, and distribution of marketing materials. Roughly 35 percent of project costs were spent on research and analysis related to the development of marketing strategies and the assessment of the impacts of those strategies. Approximately 15 percent of the total (including a portion of the research and analysis figure) can be considered strictly demonstration-related.

An additional project cost was revenue lost through the use of free fare and discount coupons. Calculating the amount of revenue lost was very difficult in this case because of the limited data available on individuals' travel behavior and on the complete lack of information on time-of-day distribution of coupon usage. However, based on the survey it can be estimated that approximately 5200 of the When-You-Need-It Cards were used, producing a potential revenue loss of $3000-$4000. Based on the sale of Passports and the survey responses regarding usage, it can be estimated that just under 7000 Passport buyers each got one free trip. At $.75 per trip (i.e., the peak fare), the maximum revenue loss attributable to use of the Passport was therefore approximately $5000.

Based on the available data, the demonstration produced no discernible revenue gain, either through transit usage by new riders or increased usage by current riders. Project survey responses suggest that, overall, respondents used transit no more often following the demonstration than before it.

CONCLUSIONS/TRANSFERABLE FINDINGS/HYPOTHESES

This demonstration has tested an innovative transit marketing program. The combination of strategies applied here was different from the approach taken in most earlier marketing demonstrations. Unfortunately, this program apparently did not

increase ridership and revenue on the target routes, and did not raise the level of knowledge of transit among residents of target corridors. These results do not mean that the strategies applied in the demonstration are inherently ineffective, but it is clear that such strategies must be designed to meet specific needs. The demonstration has produced several findings relevant to expansion of transit marketing programs. The major transferable findings are as follows:

- In developing and implementing target marketing strategies, it is important to match the strategies to specific needs, as identified through market research. For instance, transit information dissemination strategies should not be directed toward corridors in which the residents display high levels of knowledge about nearby transit routes; similarly, promotional strategies should not be directed toward corridors in which high percentages of the residents have indicated that there is nothing that the transit operator could do to influence them to use transit.

- The broad dispersion of reduced and free fare coupons in this demonstration suggests that, at least in a system with closely-spaced routes, many people's transit usage is by no means restricted to the routes nearest their homes. Therefore, an attempt to generate increased ridership on specific routes through route-specific marketing strategies may not be effective unless the incentives are limited to use along the specified routes.

- In assessing the effectiveness of various marketing strategies, good data collection is essential. Use of free fare or discount coupons should be carefully tracked, for example, so as to monitor temporal and geographical dispersion. It is therefore important to set up reliable mechanisms to collect and record such coupons.

In addition to these conclusions, project results suggest several additional possibilities. While none can be proven with project data, they may be useful areas for further investigation. These hypotheses are as follows:

- In securing the participation of retailers in a fare prepayment project, offering nominal reimbursement appears to be an effective means of generating cooperation.

- Selling fare prepayment tickets through retailers may be more effective than selling through the mail.

- Sales of fare prepayment tickets may be limited if tickets represent a savings for only certain groups of users. For instance, a ticket providing a discount only for peak use will probably have limited appeal to predominantly off-peak riders. Furthermore, sales of fare prepayment tickets may also be limited by availability of monthly passes, especially where passes are priced so as to offer a discount for heavy use.

- If a series of direct mail newsletters or brochures is used to disseminate information, similar editions should not be sent close together (i.e., within a couple of months). If subsequent editions look like the first edition, recipients may disregard them, not realizing that they are different in content. In many situations, it may be most cost-effective to send only one edition per year.

- Direct mail distribution of route maps and schedules is theoretically a useful marketing tool, but this information should be in a form that is convenient to use; a large map/schedule may simply be too cumbersome to use. Furthermore, in systems with closely-spaced routes, a good system map may be more useful to many people than a map for a single route.

1. INTRODUCTION /BACKGROUND

1.1 INTRODUCTION

This report presents an evaluation of route-specific transit marketing strategies employed by the Metropolitan Transit Commission (MTC) in Minneapolis/St. Paul, Minnesota. The demonstration was funded under the Service and Methods Demonstration (SMD) program of the Urban Mass Transportation Administration (UMTA). The MTC pursued a combination of marketing strategies on five selected transit routes to test their effectiveness in increasing transit usage. The marketing "treatment" period lasted from February to May 1984, although free and reduced fare coupons distributed/sold during this period were valid through the end of 1984. The total cost of the demonstration was $170,225, including $136,180 provided by the UMTA SMD grant.

1.2 PROJECT BACKGROUND

Transit ridership declines in recent years, coupled with higher operating costs and reduced federal subsidies, have spurred the U.S. transit industry to investigate an increasingly broad range of marketing strategies. In order to test and promote research on these strategies, the SMD program of UMTA has sponsored a number of transit marketing demonstrations and research efforts. Furthermore, aside from SMD-sponsored efforts, virtually every transit property has initiated some type of marketing program.

SMD marketing demonstrations to date have primarily involved the use of pricing or promotional strategies in combination with existing transit resources to encourage a variety of objectives. In such projects, the transit operator may seek to benefit through an increase in overall transit ridership, an increase in off-peak transit ridership, and/or a shift in the peak period load. Transit promotions can enhance the image of transit, increasing its attractiveness as a transportation option.

SMD/UMTA has sponsored two primary types of pricing demonstrations -- transit fare prepayment (TFP) and free fare projects. While the marketing aspects of the TFP programs have increased awareness of transit among the general population and induced some cash-paying passengers to experiment temporarily with the TFP concept, these demonstrations have not generally achieved their major objectives -- attracting new riders to transit and increasing transit use among existing riders on a long term basis.*

---

* For example, Crain & Assoc., Transit Fare Prepayment Demonstrations in Austin, TX and Phoenix, AZ; Final Report, June 1979.

Fare elimination strategies have been more successful. Experiments with off-peak free fare programs have had a substantial impact on the nature and distribution of transit ridership. Large ridership gains have been observed, resulting both from new trips (which would not otherwise have been made) and from mode shifts for other trips. Some ridership has shifted from the peak to the off-peak period, which has in turn attracted some additional peak period ridership. Moderate success has been achieved in attracting entirely new riders to transit, although at some cost in revenues.*

A major conclusion from both the Denver and Mercer County free-fare demonstrations was that the maximum ridership increase during the fare elimination period was realized within the first few months. The maximum response occurred within the first month in both instances, and by about three months into each demonstration ridership had stabilized at a new, higher level apparently induced by elimination of fares.**

This suggests that free-fare programs in effect for shorter periods of time might be as effective as extended programs in attracting new ridership, while decreasing the initial revenue loss to the operator. Such an approach also presents less risk should the expected ridership gain not materialize or should it decay significantly over time. What has not been tested in a systematic fashion is a combination of techniques. It is possible, for instance, that discount TFP instruments might be more effective when used in conjunction with free fare coupons; i.e., the free fare coupons serve as initial incentives which attract new non-riders to try transit, while the discounted prepaid coupons then provide an incentive to continue riding.

The Minneapolis/St. Paul Transit Marketing Demonstration incorporated a combination of marketing techniques, and included two additional important departures from most previous demonstrations: 1) pricing mechanisms were used in conjunction with direct mail information dissemination; and 2) the overall approach was route-specific in nature, as opposed to the system-wide orientation of most other marketing efforts. The elements of the demonstration marketing program are described in Section 1.3.

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* De Leuw, Cather & Company, Evaluation of the Mercer Metro Off-Peak Free-Fare Transit Demonstration; Final Report, May 1980, and The Denver RTD Off-Peak Free-Fare Transit Demonstration; Final Report, March 1980.

** Of course, it should be pointed out that, in both demonstrations, ridership dropped to pre-implementation levels after fares were reinstated.

The basic purpose of the demonstration was to test the effectiveness of the overall marketing program, as well as of the individual strategies, in increasing ridership, and to measure the cost-effectiveness of the program; other objectives are discussed in Section 1.3.

1.3 PROJECT DESCRIPTION AND OBJECTIVES

1.3.1 Project Description

The Minneapolis/St. Paul Transit Marketing Demonstration project involved the development and administration of a combination of marketing techniques for a 90-day period on five selected bus routes; a sixth route was designated as a control. The specific marketing strategies included in the project were as follows:

- two direct mailings of a newsletter, called Rider's Digest, containing route-specific service information and a single-use free fare coupon, called a When-You-Need-It Card, to households along each of the five treatment routes;
- availability of prepaid fare discount cards (six rides for $3.75 -- the price of five peak-hour adult fare rides), called Passports, for purchase at designated retail outlets and restaurants along four of the routes; and
- availability of the Passport for purchase through the mail by households along a fifth route.*

Development of the marketing strategies was based in part on the results of a telephone survey administered in July 1983 to 100 randomly-selected households along each of the six routes. Based on these results and other considerations, it was decided to provide a combination of route-specific service information and discount pricing mechanisms. Although the two types of coupons were distributed or available only on particular routes, they could be used anywhere in the MTC system.

The first edition of the Rider's Digest was mailed out at the beginning of February to all households within three blocks of each of the five treatment routes. The second edition, which contained the same advertisements and route and general MTC information as the first but different human interest stories, was mailed to the same households in mid-March. Each

* The Rider's Digests mailed to the households along this route contained a form for ordering a Passport from MTC; a new order blank was included with each Passport sent out.

of the first Rider's Digests contained one When-You-Need-It Card; these cards could be used at any time through the end of the year (1984); the Passports were also valid through the end of 1984. Therefore, the direct impact of the demonstration in terms of usage of coupons lasted longer than the actual treatment period.

The final demonstration activity was a second telephone survey, administered to a new group of randomly-selected households (100 along each of the six routes) in May 1984. This survey provided transit usage and attitudinal information with which to assess the impact of the demonstration marketing techniques. Following completion of this survey, MTC and the project contractors produced a final project report.*

1.3.2 Project Objectives

The Minneaplis/St. Paul Transit Marketing Demonstration was designed to meet both national (UMTA) and local (MTC) objectives. The basic goal of this demonstration from a national perspective was to test the effectiveness of the overall demonstration marketing program in generating increased ridership in a cost-effective manner (e.g., while maintaining or increasing the fare recovery rate). Within this goal, specific national objectives included: 1) to demonstrate the effectiveness of a route-specific marketing approach in increasing ridership, knowledgeability about the target transit routes, and support for transit in general; and 2) to determine the relative cost-effectiveness of various combinations of marketing strategies in reaching the intended market and in increasing ridership on a long-term basis.

MTC's overall goal was to increase system ridership in a cost-effective manner. Specific objectives included the following:

- to generate increased ridership on the five treatment routes (chiefly by increasing transit usage by people living along these routes),
- to assess the relative cost-effectiveness of the different marketing techniques in reaching the target market,
- to obtain socio-demographic information about households within each of the demonstration route corridors, and to increase user and non-user knowledge of the transit system, as well as of individual routes.

* Anderson & Berdie Associates, Inc. and BRW, Inc. Variable Fare Demonstration Program, produced for MTC, September 1984.

1.4 ORGANIZATIONAL ROLES

The MTC was the grantee for this project. MTC retained two outside contractors to assist in carrying out the demonstration activities. Anderson & Berdie Associates, Inc. had responsibility for carrying out project data collection activities and developing the project marketing strategies; BRW, Inc., a subcontractor to Anderson & Berdie, was actually responsible for the bulk of the latter activity. Carmichael-Lynch, Inc. was responsible for producing the actual marketing materials.

UMTA has overall responsibility for the Service and Methods Demonstration program itself, while the Transportation Systems Center (TSC) of the U.S. Department of Transportation (DOT) is responsible for the evaluation of all SMD projects. This evaluation was performed by Multisystems, Inc. under contract to TSC.

1.5 KEY EVALUATION ISSUES

In evaluating the demonstration project, four basic categories of issues were addressed: travel behavior, cost-effectiveness, attitudinal changes, and transferability of the results. The key specific issues included under each category were as follows:

travel behavior

- How effective was the demonstration in generating increased ridership on both treatment and non-treatment routes during the eight-month post-treatment period?
- What was the relative effectiveness of each set of marketing strategies in generating increased ridership?
- What was the total number of free and discount coupons sold (and the estimated number of trips made using coupons)?

cost-effectiveness

- What were the total costs of developing, implementing, and administering the demonstration marketing program?
- What is the relative cost-effectiveness of the different combinations of marketing strategies?

attitudinal changes

- What changes in people's attitudes toward MTC and transit in general did the demonstration produce?
- What changes did the demonstration induce in people's knowledge of individual bus route characteristics?
- What was the reaction of participating retailers to the demonstration project?

transferability of the evaluation results

- What exogenous factors, if any, would affect the applicability of the demonstration to other sites?

These issues are addressed in this report, which is organized as follows: Chapter 2 describes the demonstration setting; Chapter 3 discusses the development, implementation, and operation of the project; Chapter 4 examines travel behavior characteristics and economic impacts; and Chapter 5 presents conclusions and discusses the transferability of the project findings.

2. PROJECT SETTING

This chapter provides a description of the characteristics of the Minneapolis/St. Paul area, its public transportation system, and the routes involved in the demonstration.

2.1 THE URBAN AREA

Minneapolis and St. Paul are the twin cities that straddle the upper Mississippi River and form a metropolis that is the educational, cultural, financial and industrial capital of the north central states. Minneapolis, with a 1980 population of 370,951, is the largest city in Minnesota. St. Paul, with a 1980 population of 270,230, is the second largest city and the state capital. The Minneapolis/St. Paul SMSA, which includes ten counties in Minnesota and Wisconsin, had a 1980 population of over 2.1 million, an increase of 7.5 percent since 1970 despite a 14 percent drop in population in the two central cities. This increase was enough to raise the SMSA from the 17th to the 15th largest in the nation.

The SMSA population is 95 percent white, although there are twelve percent and nine percent non-white populations in Minneapolis and St. Paul, respectively (see Table 2-1). The age distribution of the population (Table 2-2) shows that only 10 percent of the SMSA population is over 65. In the central cities, however, this figure is 15 percent. The SMSA covers 4647 square miles, with an average population density of 455 persons per square mile, while Minneapolis and St. Paul have population densities of 6,732 and 5157 persons per square mile, respectively.

The median (1979) household income was $14,351 for Minneapolis, $16,029 for St. Paul, and $20,699 for the entire SMSA. Per capita income was $7,940 for Minneapolis, $7,694 for St. Paul, and $8,632 for the entire SMSA. Table 2-3 shows the distribution of income among households.

For travel to work, 83 percent of the workers in the SMSA use private vehicles, with 63 percent driving alone and 20 percent in carpools or vanpools (see Table 2-4). Only nine percent of SMSA commuters use buses to get to work. The mean travel time for workers in the SMSA is 20.1 minutes, and, as shown in Table 2-5, 75 percent of working SMSA residents travel 30 minutes or less to work. Of all the households in the SMSA 11 percent had no vehicles available to them, while 35 percent had only one (Table 2-6).

TABLE 2-1

POPULATION DISTRIBUTION (BY RACE AND SPANISH ORIGIN)

Race	Minneapolis	St. Paul	SMSA
White	325,415 (88%)	245,795 (91%)	2,013,433 (95%)
Black	28,469 (8%)	13,018 (5%)	49,266 (2%)
Am.Indian/ Eskimo/Aleut	9,198 (2%)	2,558 (1%)	17,200 (1%)
Asian/Pacific	5,358 (1%)	5,345 (2%)	24,552 (1%)
Not Specified	2,511 (1%)	3,514 (1%)	9,082 (*)
Total	370,951	270,230	2,113,533
Spanish Origin	4,762 (1%)	7,533 (3%)	22,613 (1%)

* less than 1%

Source: 1980 Census of Population and Housing

TABLE 2-2

POPULATION DISTRIBUTION (BY AGE)

Age	Minneapolis	St. Paul	SMSA
5	22,329 (6%)	18,716 (7%)	154,073 (7%)
5-19	65,990 (18%)	57,609 (21%)	526,281 (25%)
20-64	225,580 (61%)	153,273 (57%)	1,231,543 (58%)
65+	57,052 (15%)	40,632 (15%)	201,636 (10%)
Total	370,951	270,230	2,113,533

Source: 1980 Census of Population and Housing

TABLE 2-3

DISTRIBUTION OF INCOME (1979)

Income	Minneapolis	St. Paul	SMSA
$5,000	26,204 (16%)	14,194 (13%)	68,442 (9%)
$ 5,000-$ 7,499	16,166 (10%)	9,656 (9%)	47,494 (6%)
$ 7,500-$ 9,999	14,623 (9%)	8,998 (9%)	46,975 (6%)
$10,000-$14,999	27,276 (17%)	16,858 (16%)	100,487 (13%)
$15,000-$19,999	22,659 (14%)	15,327 (14%)	102,193 (13%)
$20,000-$24,999	17,715 (11%)	13,381 (13%)	105,839 (14%)
$25,000-$34,999	21,862 (13%)	15,822 (15%)	156,347 (20%)
$35,000-$49,999	10,730 (7%)	8,126 (8%)	89,047 (12%)
$50,000 or more	4,936 (3%)	3,815 (4%)	46,251 (6%)
Total	162,171	106,177	763,075
Median Household Income	$14,351	$16,029	$20,699
Median Family Income	$19,737	$20,743	$24,582
Per Capita Income	$ 7,940	$ 7,694	$ 8,632

Source: 1980 Census of Population and Housing.

TABLE 2-4

MEANS OF TRANSPORTATION TO WORK (Minn./St. Paul SMSA)

Mode	No. Workers (16 and older)	
Car, Truck or Van:		
Drive alone	660,638	(63%)
Carpool	207,895	(20%)
Bus	89,441	(9%)
Walk	51,890	(5%)
Other	12,115	(2%)
Worked at home	24,427	(2%)

Source: 1980 Census of Population and Housing

TABLE 2-5

TRAVEL TIME TO WORK (Minn./St. Paul SMSA)

Time	No. Workers (16 and older who did not work at home)	
10 minutes	161,920	(16%)
10-19 minutes	350,899	(34%)
20-29 minutes	256,576	(25%)
30-44 minutes	179,503	(18%)
45 minutes or more	72,799	(7%)

Source: 1980 Census of Population and Housing

TABLE 2-6

VEHICLE AVAILABILITY (Minn./St. Paul SMSA)

Vehicles available per household	No. Households	
None	82,525	(11%)
1	268,856	(35%)
2	276,401	(36%)
2 or more	134,594	(18%)

Source: 1980 Census of Population and Housing

2.2 PUBLIC TRANSPORTATION

The Metropolitan Transit Commission (MTC) is the principal transit provider in the metropolitan area, with a service district of 2,900 square miles in seven counties. Approximately 98 percent of the area's transit riders are carried on MTC buses. Journey-to-work data from the 1980 census show that over 89,000 workers traveled to their place of work by bus. This represents about nine percent of the working population of the SMSA. As shown in Table 2-4, 63 percent of the working population drove alone to work and 20 percent were in carpools.

MTC operates 800 buses (during peak hours) of various sizes and makes.* Service is operated on 119 routes, providing a total of about 29 million vehicle miles per year. Service is provided between the hours of 4:30 a.m. and 1:00 a.m. on weekdays, with headways varying from three minutes to two hours.

Service includes 61 all-day local routes (five of which are crosstown), 13 express routes (consisting of a total of 35 individual runs), special University of Minnesota service (consisting of 11 runs), demand-responsive service for the elderly and handicapped,** and downtown circulator service, as well as charter and sightseeing service.

For regular fixed route service there is a zonal fare system with four zones. Base fare is $.60 (1 token) within any zone. From the outer three zones to Zone 1 (Minneapolis/St. Paul) fares are $.75, $.90, and $1.00, in order of distance. Suburban riders who do not enter Minneapolis/St. Paul pay only the base fare regardless of the number of zones crossed. In addition to any of these fares, a $.15 surcharge is applied during peak hours (6 - 9 a.m.; 3:30 - 6:30 p.m.) and a surcharge of $.10 is applied for express services which operate on freeways. Transfers are free (except for zonal charges), and are good for up to four buses per trip. In the central business districts of both Minneapolis and St. Paul special "Dime Zones" exist within which passengers may ride at all times for a $.10 fare.

During off-peak hours discount fares are offered for senior citizens, handicapped riders, children, and the unemployed. Senior citizens (65 and older) can ride for

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* The MTC operational data presented here are from late 1983-early 1984 and were provided by the MTC.

** This is a coordinated system called Metro Mobility. Service is provided by MTC-operated lift-equipped buses, three taxi companies, a private non-profit organization, and a private bus company.

$.10 at these times, and handicapped passengers can ride for $.30. No zonal or express charges are applied for either group. Children (6-18 years old) pay $.20 (during the off-peak) plus any applicable zonal or express charges. As part of an innovative program, unemployed persons board for a $.25 discount from the regular adult off-peak fare by showing a special card (the Job Employment Transfer, or JET pass). During peak hours all riders pay regular peak-hour adult fare plus any applicable zonal or express charges. Children under six may ride free at all times.

In addition to tokens and cash fares, two forms of prepaid fares, called "MTC Convenience Fares" are offered. "Ten-ride Commuter Tickets" are sold for all combinations of fares and surcharges at the cost of ten one-way rides. No discount is given. A monthly pass called an "All You Can Ride Card" is also offered for all fare combinations. This pass allows unlimited rides for the cost of twenty round trips per month; passes are available in both peak and off-peak denominations.

2.3 THE DEMONSTRATION ROUTE CORRIDORS

This demonstration focuses on six routes. Two of the routes pass through downtown St. Paul, three enter downtown Minneapolis, and one is a crosstown route in suburban Minneapolis. A survey was taken of roughly 100 residents in each of the six corridors in July 1983. The survey included questions on length of residence, age, employment, and income, in addition to questions relating to transit use. The demographic information from the survey is shown for each route in Tables 2-7 through 2-10. The information is discussed below for each corridor, along with a brief description of the bus route. The demonstration routes are shown on Figure 2-1.

Route 3 (St. Paul) - This route runs east-west through downtown St. Paul and extends from Oakdale in the east, where there are six branches, to St. Thomas College in St. Paul to the west. Service frequency varies from less than ten minutes during peak hours in the downtown area to two hours along one branch in the off-peak. In November 1983, the route carried approximately 7000 passengers per weekday, or 3.4 passengers per vehicle-mile -- down from 9000 (and 4.2) in November 1981. (See Table 2-11 for a summary of the ridership changes on the demonstration routes.) Survey respondents in this corridor reported a wide variation in household income, with 32 percent making less than $10,000 and 25 percent making more than $30,000. The age distribution is bimodal in nature, with a large number of respondents under 30 (25 percent) and a large elderly population (27 percent). The area is relatively stable in terms of length of residence, with 78 percent of respondents having lived there for at least the last three years.

TABLE 2-7

TOTAL HOUSEHOLD YEARLY INCOME BY ROUTE

	Income Category						
Route	Less than $7500 %	$7500-$10,000 %	$10,001-$15,000 %	$15,001-$20,000 %	$20,001-$30,000 %	More than $30,000 %	No Answer %
Route 3	14	18	4	8	16	25	15
Route 5	14	17	12	12	21	18	6
Route 9	21	3	12	11	17	12	24
Route 15	11	9	9	18	17	17	19
Route 17	13	5	15	14	17	20	16
Route 22	17	10	18	11	15	11	18

Source: MTC Household Survey (July 1983)

TABLE 2-8

EMPLOYMENT STATUS BY ROUTE

	Employment Status of Respondents			
Route	Employed Full-time %	Employed Part-time %	Not Employed %	Retired %
Route 3	52	8	15	25
Route 5	50	13	14	23
Route 9	38	10	27	25
Route 15	52	9	10	29
Route 17	71	7	10	12
Route 22	41	9	24	26

Source: MTC Household Survey (July 1983)

TABLE 2-9

AGE BY ROUTE

Route	Age Category 18 to 29 %	30 to 45 %	46 to 64 %	65 or more %	Average (mean)
Route 3	25	33	15	27	46
Route 5	23	30	23	24	48
Route 9	18	30	23	29	50
Route 15	13	28	34	25	52
Route 17	33	36	15	16	41
Route 22	22	37	13	28	47

Source: MTC Household Survey (July 1983)

TABLE 2-10

LENGTH OF RESIDENCE AT CURRENT ADDRESS OF PEOPLE WHO LIVE ALONG SELECTED ROUTES

Route	Length of Residence Less than 1 year %	1-3 years %	4-6 years %	More than 6 years %
Route 3	4	18	20	58
Route 5	3	25	12	60
Route 9	4	15	12	69
Route 15	2	17	14	67
Route 17	14	35	15	36
Route 22	5	33	7	55

Source: MTC Household Survey (July 1983)

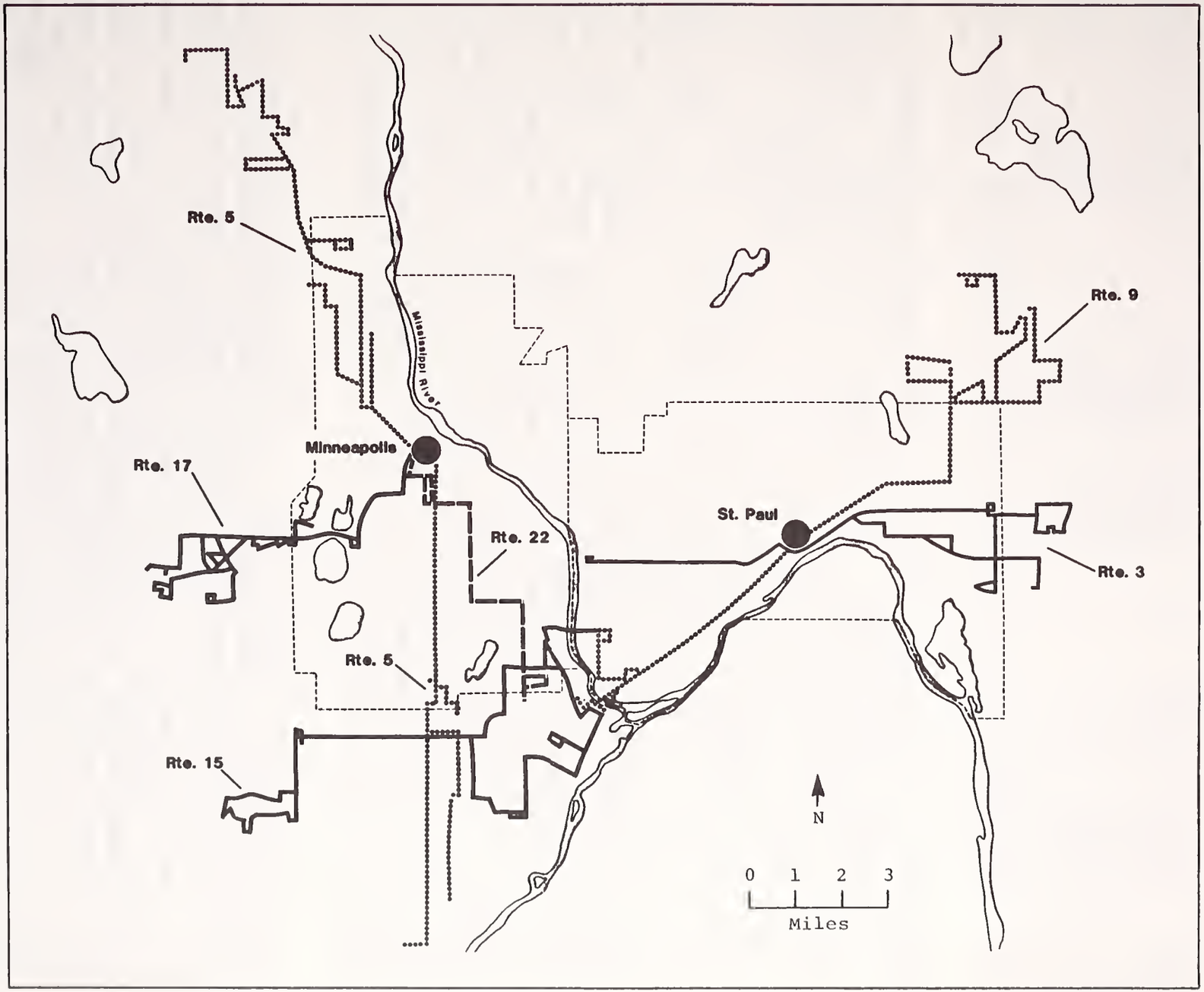

FIGURE 2-1. THE DEMONSTRATION ROUTES

TABLE 2-11

CHANGE IN WEEKDAY RIDERSHIP BY ROUTE

Route	Nov. '81 Ridership	Nov. '81 Pass/Veh.-mi.	Nov. '83 Ridership	Nov. '83 Pass/Veh.-mi.	% Change in Ridership	% Change in Pass/Veh.-mi.
Route 3	9,102	4.2	6,962	3.4	-24%	-19%
Route 9	6,991	2.9	5,849	2.7	-13%	- 7%
Route 5	26,257	4.0	22,149	3.9	-16%	- 3%
Route 15	1,345	1.5	1,271	1.4	- 6%	- 7%
Route 17	10,658	4.7	10,708	5.1	----	+ 9%
Route 22	5,089	3.6	4,036	2.9	-21%	-19%

Source: MTC Route Profiles (Ridership figures are drawn from driver trip sheets which are based on boarding counts.)

Route 9 (St. Paul) - This route runs northeast-southwest through downtown St. Paul and extends from Oakdale, North St. Paul, and Maplewood in the northeast to the Mississippi River in southwest St. Paul. There are a few short branches at each end. Frequency varies from less than ten minutes during the peak hour downtown to hourly on some branches during off-peak hours. In November 1983, this route carried 5800 passengers per weekday, or 2.7 passengers per vehicle-mile -- down from 6,700 and 2.9 in November 1981. Survey respondents in the corridor were of relatively low income. Only 12 percent of the households made more than $30,000, while 21 percent made less than $7,500. This is borne out by the employment data. Only 38 percent were employed on a full-time basis, while 27 percent were not employed (either unemployed or not a member of the labor force) and 25 percent were retired. This corridor also showed a relatively older population, with 29 percent over 65 and only 18 percent under 30. Neighborhoods in this corridor were also the most stable of the demonstration routes, with 81 percent of the responding households having lived there for at least the last three years, and 69 percent having been in residence more than six years.

Route 5 (Minneapolis) - This is a long route (approximately 24 miles), which runs in a north-south direction across downtown Minneapolis and extends to Richfield and Bloomington to the south and Brooklyn Park to the north. There are several branches on each end. Frequency varies from every five minutes downtown during peak hours to hourly on some branches. Ridership is heavy, with over 22,000 daily riders (in November 1983), or 3.9 passengers per vehicle-mile -- down from 26,000 and 4.0 in November 1981. Survey respondents show a broad but fairly flat distribution of income. Respondents in this corridor also show a fairly wide range in age, with 23 percent under 30 and 24 percent over 65. The population of the area is quite stable, with 72 percent of respondents having lived there for at least the last three years.

Route 15 (Minneapolis) - This is a crosstown route running east-west from the Minneapolis/St. Paul Airport and the Ford Parkway in St. Paul to the east to Richfield and Edina in the west. There are two branches on the eastern end. Frequency on the main section of the route varies from ten to 30 minutes. In November 1983, the route carried nearly 1,300 passengers per weekday, or only 1.4 passengers per vehicle-mile -- down from over 1,300 and 1.5 in November 1981. Survey respondents in the corridor generally had moderate to high incomes, with only 20 percent making less than $10,000. The corridor also has a relatively older but more stable population. Only 13 percent of the respondents were under 30 years old while 59 percent were over 45 and 25 percent over 65; 81 percent of the respondents had lived in the corridor for at least the last three years, while 67 percent had not moved in six years.

Route 17 (Minneapolis) - This route runs west from downtown Minneapolis to Hopkins, where there are several branches. Frequency varies from less than five minutes downtown during peak hours to one hour off-peak on some branches. Ridership is heavy, with the route carrying nearly 11,000 riders per day, or 5.1 per passenger-mile (in November 1983). As opposed to the other routes, ridership was slightly higher than in November 1981, while the passenger per mile figure is nine percent higher than in 1981 (4.7). Survey respondents in the corridor generally had moderate to high incomes, with only 18 percent making less than $10,000. A relatively large share (71 percent) of respondents had full-time jobs. The corridor has a very young population with 33 percent under 30 and 69 percent under 45. Only 16 percent are over 65 and only 12 percent are retired. (This is close to the city-wide share of elderly residents, while the other five corridors had significantly higher shares of elderly respondents.) The relatively young population probably accounts for the generally low period of residency in the corridor. Only 36 percent of the respondents have lived at their current address more than six years, while 48 percent have moved there within the last three years and 14 percent within the last year.

Route 22 (Minneapolis) - This route runs south from downtown Minneapolis to South Minneapolis. There are both express and local runs on this route, but both have the same endpoints. In November 1983, this route carried 4,000 passengers per weekday, or 2.9 per vehicle-mile -- down from 5,100 and 3.6 in November 1981. Survey respondents in this corridor had moderate to low incomes, with 27 percent earning less than $10,000 and only 11 percent earning more than $30,000. Only 41 percent were employed full-time, while 24 percent were not employed and 26 percent were retired. This corridor had a high percentage of elderly respondents (29 percent), and also a large percentage of residents (38 percent) who had lived at their current address less than three years.

In summary, with the exception of Route 17, the populations of six corridors vary relatively little demographically. The other five corridors generally have a fairly stable population of varying incomes with a large proportion of elderly, retired people. The Routes 3 and 5 corridors have the highest percentage of low income residents, while the Routes 9 and 22 corridors have the highest percentages not employed. All routes except Route 17 have a much higher percentage of elderly and retired people than does the urban area as a whole. The Route 17 corridor has a rather young and more transient population, with a high percentage holding full-time jobs.

In terms of ridership changes, Table 2-11 shows that four of the routes experienced substantial declines in average weekday ridership between 1981 and 1983; Route 15 had a modest drop, while Route 17 showed a slight gain. The changes in productivity (passengers per vehicle-mile) reveal that, although MTC reduced vehicle-mileage during the two-year period, ridership declined faster than service was reduced (except on Route 17).

3. PROJECT DEVELOPMENT AND OPERATION

This chapter describes the activities involved in the development and operation of the Minneapolis/St. Paul Transit Marketing Demonstration. Included are discussions of the project's history, the development and implementation of project marketing strategies, project administration, and data collection activities.

3.1 DEVELOPMENT AND IMPLEMENTATION OF THE DEMONSTRATION

3.1.1 History of the Demonstration

This demonstration was the successor to two earlier projects initiated by the MTC but never implemented. The first of these -- "Variations on Free Transit" -- was a demonstration involving six different experiments, each aimed at testing a different free fare parameter; the experiments represented various combinations of numbers of free fare coupons and distribution methods on different routes. However, the proposed project, initiated in 1980, was very complex in design and would have been difficult to administer and to evaluate. Due to this fact, coupled with administrative problems over the selection of a marketing subcontractor, MTC decided not to implement the project.

Following that decision, MTC sought to transfer the UMTA funds that were to be used for the Variations on Free Transit demonstration to a human resources study. However, the UMTA Chief Council ruled (in early 1982) that the funds could be used only for a free fare-type project, thereby prohibiting the implementation of the second proposed demonstration. Consequently, the MTC proposed a revised fare-related demonstration in September 1982. This proposal was accepted by UMTA, and, with some modification, the Marketing/Variable Fare Demonstration began in early 1983.

The demonstration consisted of four "phases." Phase 1 included the selection of demonstration routes, the selection of contractors, and the administration of a "before" survey of residents along each of the selected routes; this phase was completed in August 1983. Phase 2 consisted of the formulation of marketing strategies and the production of marketing materials; this phase was completed in January 1984. Phase 3 was the actual treatment period, during which materials were distributed and/or made available; this phase lasted until the end of April 1984. Phase 4 involved the administration of an "after" survey of residents along the demonstration routes; this took place in May 1984. That marked the official end of the project, although the reduced and free fare coupons were valid through December 1984.

3.1.2 Preliminary Project Activities

The preliminary project activities began with the choice of demonstration routes. The six routes -- five treatment and one control -- were chosen on the basis of several criteria.* Four demonstration routes were to be in Minneapolis and two in St. Paul, but all were required to have a "substantial amount" of service within six miles of downtown. All six routes were to have experienced "significant reductions" in peak-hour ridership, and all had to be routes on which ridership could be measured. It was considered important to have routes representing a variety of demographic characteristics. No route for which significant schedule changes were planned could be included. The selected routes fit the above criteria. All six had had peak-hour ridership reductions of between 13 and 19 percent, measured from May to October 1982.

The second preliminary activity was to secure the services of contractors to carry out data collection and analysis and to assist in the development and production of marketing materials. Two contractors were selected by MTC: Anderson & Berdie Associates, Inc. was responsible for data collection and analysis activities and developed recommendations on marketing strategies, and Carmichael-Lynch, Inc. developed the marketing/ advertising plan and designed the actual marketing materials for the project. A third firm, BRW, Inc., served as a subcontractor to Anderson & Berdie and was responsible primarily for analyzing transportation-related issues, as opposed to more general market research issues. Anderson & Berdie was awarded a contract of $60,000 in May 1983. Charmichael-Lynch was given a contract totaling $13,750 in June 1983. The contractors' roles in the project are discussed further below.

3.1.3 Pre-Implementation Survey

The first major project activity was the administration of a telephone survey to randomly-selected households located within three blocks of each of the six project routes. This survey, undertaken during the period July 13 to 25, 1983, was designed and administered by Anderson & Berdie in conjunction with the MTC. Approximately 100 surveys were completed for each of the routes, with 97 percent of the contacted households agreeing to participate.

The survey was designed to gather information about respondents' level of knowledge of, usage of, and attitudes toward MTC and transit in general, as well as sociodemographic information. Included were questions related to whether respondents would change their transit usage patterns if certain service and fare changes were initiated, as well as questions on reasons for not using transit.

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* Memo, Bob LaShomb to Scott Dixon, December 27, 1982.

Results of this survey* revealed that there were some gaps in residents' knowledge of local transit information, although the level of knowledge was quite high overall. Along one of the routes (15), 28 percent of the respondents were unaware that a bus route ran within three blocks of their homes; approximately 78 percent knew there was a route, but did not know the number of the route; and 54 percent did not know "where the bus goes." However, along the other routes, a very high percentage (87 percent or more) of respondents were aware that there was a route within three blocks of their homes. At least 71 percent of the respondents on each of these five routes knew what their bus fares would be, as opposed to 48 percent on route 15, and at least 72 percent of the respondents on four of the routes (only 60 percent of the Route 22 respondents) knew "where the bus goes."

Regarding use of transit, the survey revealed that relatively few respondents along any of the routes were "regular" riders. The vast majority of respondents (69-89 percent) on all six routes reported that they (and members of their households) used transit "once or twice a month" or less -- most of these (54-87 percent) no more than "once or twice a year." Conversely, between seven and 22 percent of respondents (and members of their households) ride the bus "three or more days per week." When asked "whether there was anything MTC could do" to induce non-riding respondents to ride the bus, 76-94 percent replied "no."

The results of the survey were useful in that they presented base information, against which to compare the results of a second (post-treatment) survey, to aid in assessing the impact of the demonstration. Changes in responses between the two survey efforts are addressed in Section 3.2.3.

3.1.4 Development of Marketing Strategies

As part of the process of selecting specific marketing strategies, research was undertaken into previous marketing demonstrations in other locations.** This research revealed that the typical result of fare reductions (or free fares) has been a temporary ridership increase coupled with a substantial revenue loss. Better overall results have been obtained in cases where fare reductions were offered within a comprehensive

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* A copy of the survey instrument and a full summary of the results are included in Appendix A.

** See Anderson & Berdie Associates, Inc., Variable Fare Demonstration - Final Report, prepared for MTC, September 1984. This report describes the results of fare demonstrations in Atlanta (GA), Seattle (WA), Denver (CO), Allegheny Co. (PA), Austin (TX), Phoenix (AZ), Boston (MA), Mercer Co. (NJ), St. Louis (MO), and Toledo (OH).

promotional-informational program. Based in part on these findings, MTC decided to provide a combination of route-specific service information and discount pricing mechanisms. The key differences from most earlier demonstrations were the route-specific emphasis -- as opposed to a general system-wide orientation -- and the use of discount pricing mechanisms in conjunction with direct mail information dissemination.

In developing the demonstration marketing approach, over thirty different strategies were outlined and evaluated. This group was narrowed to three basic alternatives, which differed chiefly in their treatment of the specific demonstration routes. Two of the alternatives involved different types of strategies on groups (two or three) of the routes -- e.g., testing fare promotional strategies on three of the routes and disseminating transit information along two of the routes, with the sixth route serving as a control.* The third alternative, eventually selected for implementation, called for testing promotional and information dissemination strategies on five routes, with the sixth serving as the control.**

Specific marketing tools, produced by Carmichael-Lynch, were as follows:

- Passport, a prepaid fare discount card (six rides for $3.75 -- the price of five peak-hour adult fare rides) (see Exhibit 3-1),

- When-You-Need-It Card, a single-use free fare coupon (see Exhibit 3-2), and

- Rider's Digest, a newsletter presenting route-specific service information and general information about MTC (see Exhibit 3-3 and Appendix F).

The Passport could be purchased only from participating retailers*** along Routes 3, 9, 15, and 17. Households along Route 5 received information about ordering Passports by mail (from MTC) only. All Passports could be used on any route in the MTC system. The coupons were to be punched for each of the

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* The second of these alternatives involved testing promotions on two rather than three routes, with two control routes.

** In order to better assess the demonstration's impact on the treatment routes, an additional six control routes were later selected for UMTA's evaluation. These routes were chosen because of their similarity to the treatment routes in terms of ridership and service characteristics. The specific routes are identified in Chapter 4.

***The recruitment of retailers is discussed in Section 3.1.5.

RULES:

Present this ticket to the driver when boarding any bus.One circle will be punched out for full payment for that one-way trip.

- It will be honored in lieu of a cash fare for any bus ride.
- Transfers issued upon request.
- Good for 6 rides in either direction.

Metropolitan Transit Commission
801 American Center Building
150 East Kellogg Boulevard
St. Paul, Minnesota 55101

№ 14760

EXHIBIT 3-1. THE PASSPORT

IN CASE OF EMERGENCY, USE THIS CARD.

THE WHEN-YOU-NEED-IT CARD

Good for a free ride.

Expires December 31, 1984

Some day you'll need a lift. Your car may break down. You could be stranded.

We'll be there.

Just use this card to get where you need to go to set things right. And relax while you ride, on the bus.

The card's name says it all. It's good any time, for any fare, on any regular MTC bus. Just give it to the driver to punch. And take a free ride—on us. Take the bus.

NICE GOING.

Metropolitan Transit Commission

EXHIBIT 3-2. THE WHEN-YOU-NEED-IT CARD

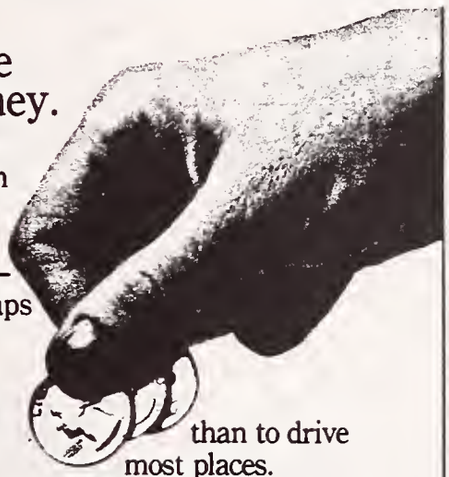
© 1984 Metropolitan Transit Commission

March, 1984

RIDER'S DIGEST

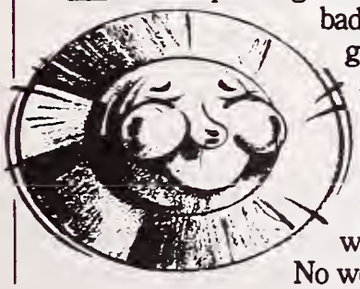
Five Good Reasons to Take the Bus.

1 Save money.



What better reason could there be to do something — except perhaps to make money? It costs less to take the bus than to drive most places. (Remember, it costs you 26.7¢ per mile to drive the average car.) Plus you save wear and tear on your vehicle.

2 Relieve stress.



Avoid parking and traffic hassles, and bad weather, when the going gets tough, smart people get going — on the bus. Just step on the bus to go some place and step off when you get there. No worries.

3 Save time: do two things at once.

Who says you can't? You can read and ride on the bus. You must admit, it's a lot more fun to relax and read the paper than to drive.

4 Meet new friends.

Sharing a seat on the bus with one of your neighbors is a great way to meet them. You could discuss the state of affairs in Washington. Or even the latest weather.

5 Visit new places.

The bus takes you almost anywhere you'd like to go. You can visit museums and shops and friends and the zoo. Just take a look at page 4 and the center map to see where you can go on your local bus route.

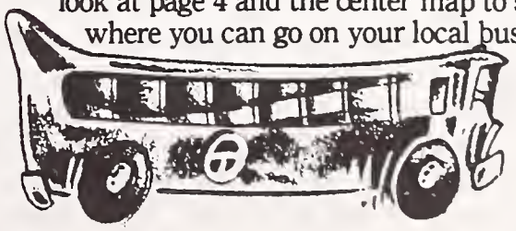


EXHIBIT 3-3. RIDER'S DIGEST COVER

first five uses and the MTC drivers were instructed to collect the coupons following their sixth use. (The number of Passports collected and turned in to MTC is discussed in Chapter 4.) Passports could be purchased during the period beginning with the receipt of the first Rider's Digest (late January 1984) through April 1984; however, they could be used on MTC buses through December 1984.

One When-You-Need-It Card was mailed to each household within the demonstration route corridors. The card, which was to be turned in to the driver upon use, was included in the first issue of the Rider's Digest. (The use of the cards is discussed in Chapter 4). Like the Passport, these cards could be used through the end of 1984.

The Rider's Digest was mailed to each household within three blocks of each of the demonstration treatment routes, or approximately 55,000 in total. Two editions were produced; the first was sent out February 3-14, 1984, the second March 16-19 of the same year. Each Rider's Digest was 16 pages in length, in a fold-out format with eight pages on each side. One complete side of the unfolded brochure, which measured 34" x 22", contained a very large map and schedule for the particular route; the other eight pages contained both route-specific and general system information. The general information, which was identical for each route's version of the newsletter, included a description of the demonstration and its promotional elements, a description of "how to ride the bus" (including fare and service hour information), and anecdotal information about the MTC, including a cartoon about MTC and a "busrider's trivia" quiz. Also included was a description of how to obtain and use the Passport. This section was slightly different in the Route 5 Rider's Digest because of the different purchase procedure. The first edition of the newsletter also contained a When-You-Need-It Card.

The route-specific section of the Rider's Digest included descriptive material on the corridor's major points of interest (e.g., shopping areas, tourist attractions, schools, etc.), as well as a list of destination signs for the route. Finally, the versions for all but Route 5 contained "advertisements" for those retailers along each route selling the Passport. MTC's initial intent was to have each retailer submit artwork for an ad. However, this plan did not work out, and MTC decided to include only the retailer's name, address and telephone number in the ads. A number of these retailers included in their ads special discounts on purchases, generally with presentation of the ad. The route specific information was identical in both editions of the Rider's Digest, while the general information was modified somewhat in the second edition. (Examples of the two editions are shown in Appendix F.)

3.1.5 Recruitment of Retailers

During the last several months of 1983, the original MTC project manager met with retailers and restaurants along Routes 3, 9, 15, and 17 in an effort to recruit Passport sales outlets.* The incentives offered for participation were free advertisements in the Rider's Digest and a monthly cash payment; this commission amounted to 1.5 percent of the monthly Passport sales receipts, or a minimum payment of $15 per month. In all, 45 retailers/restaurants agreed to participate; the breakdown by route is as follows: Route 15, 11 retailers; Route 17, 13; Route 9, 14; and Route 3, 7. The project manager attempted to enlist one retailer for every few blocks along each route. This was generally accomplished on all routes except Route 3, which has no retailers along a major segment. However, rather than not use any retailers on that route, MTC decided to proceed with partial coverage of the route. The retailers' attitudes toward their role in the demonstration, as found in the results of a retailers' survey administered in May 1984, are discussed in Chapter 4, as are sales of Passports.

3.2 ADMINISTRATION AND OPERATION OF THE DEMONSTRATION

3.2.1 Demonstration Management

The demonstration was managed through MTC's Marketing Department. A marketing staff member was assigned to the project on a nearly full-time basis for most of its duration; he spent roughly 75 percent of his time on the project. In May 1984, however, that staff member left MTC; at that time, the MTC marketing manager assumed responsibility for the project. Over the remainder of the demonstration, he spent approximately 5-10 percent of his time on the project.

3.2.2 Problems Encountered

During the process of administering the demonstration project, MTC encountered several problems that affected its outcome. These are described below.

The first major problem involved the mailing of the initial edition of the Rider's Digest. The address labels contained actual names and did not include "occupant" or "resident." Since the mailing used bulk rate postage, those copies addressed to persons no longer residing at the specified addresses were not delivered. It is not known how many copies of the newsletter were not delivered for this reason; nevertheless, the second edition included instructions to mail

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* He did not approach those establishments already serving as outlets for MTC monthly passes.

carriers that the newsletters should be delivered to "current occupant" if the name on the address was incorrect.

A second problem involved the existence of bogus Passports. When the Passports were printed, the initial batch was printed incorrectly and was rejected by MTC. However, over 8000 of the rejected coupons could not be accounted for by the printer, and some of these subsequently turned up on MTC buses. Only "a few" (approximately ten) of the illegal Passports were collected by MTC drivers (i.e., following their sixth use), but it is not known how many were used for less than six trips and thus never turned in to the drivers. Use of these bogus coupons obviously cost MTC in lost revenue, but it is impossible to determine the amount of this loss. (Lost revenue from use of legitimate Passports and When-You-Need-It Cards is discussed in Chapter 4.)

The next problem occurred following the close of the actual demonstration period, when the MTC sought to collect the money received from sale of the Passports from the retailers. Three of the retailers did not turn over any funds. One retailer claimed that his entire stock of Passports had been stolen, while the other two could account for neither receipts nor unsold cards; one of the latter disclaimed all responsibility for participating in the project, saying that the person who had agreed to take part in the project did not have the authority to do so. MTC's Finance and Claims Department decided to take these two retailers to court.*

The final problem encountered during the demonstration related to assessing the impact of the demonstration strategies when many of the Passports and When-You-Need-It Cards were not collected (or at least not turned in) by MTC drivers. All regular drivers were instructed to collect these cards and hand them in at the end of each shift; however, the drivers were not used to doing this and, by and large, apparently did not. Unfortunately, it is impossible to even estimate the number of cards not collected vs. the number not used (e.g., When-You-Need-It Cards thrown away or lost, or Passports with five or fewer rides taken).

3.2.3 Post-Implementation Survey

The final major project activity was the administration of a post-treatment telephone survey of residents of the demonstration corridors. The survey took place during the period May 25 through June 17, 1984, and, like the initial survey, the sample was 100 households along each route. The survey was designed by Anderson & Berdie Associates, Inc. in conjunction with MTC and with input from TSC and Multisystems;

* This issue had not been resolved as of this writing.

it was administered and analyzed by Anderson & Berdie. Anderson & Berdie reported that 96 percent of the households contacted agreed to participate.

The post-treatment survey was designed to elicit information about the impact of the demonstration marketing strategies on corridor residents' level of knowledge and usage of MTC transit. Included were questions related to reactions to individual marketing strategies, as well as general questions repeated from the first survey for comparability. Responses to questions about individual marketing strategies, as well as a comparison of the responses to the two surveys, are presented below. The survey instrument itself and a summary of the results are included in Appendix B.

Reactions to Rider's Digest

The percentage of respondents who recalled receiving at least one issue of the Rider's Digest ranged from 33 percent (Route 17) to 63 percent (Route 3), although for four of the five treatment routes, the percentage ranged between 59 and 63 percent. However, the vast majority (between 84 and 97 percent) of those people remembering the newsletter recalled receiving only one of the two issues. Possible explanations for this include: 1) the address problem described in Section 3.2.2 -- i.e., the fact that some people did not, in fact, receive two issues; 2) the fact that the two issues were similar in appearance and people did not realize that they were two different editions; and 3) the specific people who were interviewed saw only one of the issues -- i.e., someone else in the household looked at, and then disposed of, the other issue.

Approximately one-third of the people who recalled receiving the Rider's Digest "read it thoroughly," roughly three-fifths "glanced through it," and the remainder "did not read it at all." Between eight and 25 percent shared their copy with someone else.

Reactions to and usage of the route map and schedule included in the Rider's Digest can be summarized as follows:

- between 22 (Route 17) and 42 (Route 9) percent of all respondents "looked at the route map and schedule,"
- between 17 (Route 17) and 33 (Route 9) percent "found the route map and schedule helpful,"
- between 10 (Route 17) and 31 (Route 9) percent "saved the route map and schedule,"
- between 6 (Route 17) and 24 (Route 3) percent "learned about new bus destinations," and

- between 0 (Route 17) and 3 (Route 9) percent "rode the bus to new destinations."

When-You-Need-It Card

Nearly half of the survey respondents on each of three routes (3, 5, and 9) recalled receiving the When-You-Need-It Card enclosed in the first issue of the Rider's Digest; just over a third of those respondents along Route 15 and a quarter of those along 17 remembered getting the card. Much smaller percentages (8-17 percent) of all respondents actually used the cards, while a very small percentage of those individuals (1-3 percent) reported that they used the card for a trip they would not otherwise have made. Roughly two-thirds of those respondents who recalled receiving the card but had not yet used it reported that they "still had it," while one-fifth had "thrown it away," one-tenth had "given it away," and the remainder could not remember what they had done with it.

Passport

Between 25 (on Route 17) and 39 (on Route 9) percent of the survey respondents remembered reading or hearing about the Passport, although only 60 percent of those people claimed that they learned of it from the Rider's Digest; the others heard about it "from others." A total of only nine survey respondents actually bought one (or more) Passport; these were distributed over the five routes, with a high of three (on Route 17) and a low of one (on Routes 3 and 5). All of these people reported that it was easy to find a place to buy the Passport. Of the nine purchasers, two claimed that having the Passport caused them to ride more than they would have without it. Only one of the purchasers used the Passport only on the route on which it was purchased; in fact, a greater number (four) used the card only on routes other than those on which they were purchased.

Respondents who did buy a Passport were asked what they liked best about the card. Their responses, in rank order, are as follows: 1) there is no need for exact change; 2) it can be used systemwide; 3) the free ride bonus; and 4) the low cost. Those respondents who did know about the card but did not purchase one gave the following reasons (in rank order): 1) I don't ride bus enough; 2) I don't ride bus at all; 3) I buy the monthly pass; and 4) I am a senior and ride for $.10.

Comparison of Before and After Survey Responses

Because the pre-treatment (before) and post-treatment (after) surveys included several identical questions, it is useful to compare the responses to these questions from the two surveys. Such a comparison should provide an indication of the impact of the marketing strategies on corridor residents'

knowledge and usage of transit. The comparison of the two surveys can be summarized as follows:

- the percentage of all respondents who "knew that a bus route ran near their home" was significantly lower in the after than in the before survey for two of the routes and virtually the same in the two surveys for the other four routes

- the percentage of respondents who "knew enough about where the bus goes to ride" was significantly lower in the after survey than in the before survey on one route and virtually the same on the other five routes

- the comparison of before and after responses concerning frequency of ridership displays no significant differences within almost every frequency category for each route;* in other words, there was virtually no significant change in the reported frequency of ridership on the demonstration routes.

Therefore, based on this comparison of survey responses, we cannot conclude that the demonstration marketing strategies had any positive effect on corridor residents' knowledge and usage of transit. In fact, changes in the control route (Route 22) responses were often quite similar to changes in the treatment routes; in several instances, the after survey response rates for control route corridor residents displayed among the greatest increases (or among the smallest losses) over before responses.

The most likely explanation for the absence of any noticeable impact on the extent of knowledge of the routes in question is the fact that the level of familiarity with the routes among corridor residents was generally very high before the demonstration began -- i.e., along most routes, a relatively small percentage of residents stood to learn anything new about their routes. In addition, the fact that a high percentage (between 76 and 94 percent, depending on the route) of before survey respondents indicated that there was "nothing the MTC could do to cause them to ride more often" presented rather limited potential for increasing the level of usage of the routes.

The impact of the demonstration on route ridership, as well as the level of usage of the Passport and When-You-Need-It-Cards, is addressed in the next chapter.

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* The only exceptions were in the 1-2 times/month category: on Routes 3 and 15 the "after" responses were significantly higher than the "before."

4. TRAVEL BEHAVIOR AND ECONOMIC IMPACTS

This chapter assesses the demonstration's impacts on travel behavior and its cost. Specifically, the chapter includes discussions of the impact on MTC's ridership, on treatment as well as non-treatment routes, the level of free and reduced-fare coupon usage, demonstration effects on participating retailers, the costs of the project, and the impact on MTC revenue.

4.1 RIDERSHIP IMPACT

MTC's primary objective in undertaking this demonstration was to generate increased transit ridership on the treatment routes. However, because demonstration coupons could be used on any MTC route, there could be some impact on non-treatment routes as well. In order to better assess the level of impact on the treatment routes, a set of additional "control" routes was established, as mentioned in Chapter 3. Six routes, three each in Minneapolis and three in St. Paul, were selected by the evaluation contractor, in consultation with the MTC project manager; these routes have ridership levels and service characteristics similar to the five treatment routes. Thus, the ridership impact discussed below is based on examination of changes on twelve routes, five of which were subjected to demonstration marketing strategies.

The assessment of ridership impacts was done using three methods: 1) the examination of simple ridership trends before and after the treatment period; 2) a comparison of the ridership change before and after the beginning of the treatment period with the change over the same months of the previous year; and 3) the development of a time series regression model incorporating both ridership trends and a set of explanatory variables (i.e., gasoline prices, unemployment rates, seasonal changes, major service changes, fare changes and the demonstration itself). The general results of these analyses are discussed below. The construction and detailed results of the regression model are described in Appendix E.

4.1.1 Weekday Ridership Impact

The average weekday ridership trends* for the treatment routes for a two-and-a-half year period ending in

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* These figures are based on a single "typical service day" from each month; data are drawn from driver trip sheets, which are based on boarding counts.

September 1984 are shown in Figure 4-1;* the trends for the control routes are shown in Figure 4-2. As shown, ridership levels on most of the routes experienced considerable variation during the period examined. However, ridership generally was higher in the winter than in the summer.** Furthermore, most of the routes exhibited a pattern of general overall growth between August 1983 and March 1984 (the first full month of the treatment period).

As shown in Figures 4-1 and 4-2, ridership rose substantially on two of the treatment routes (5 and 17, which happen to be the treatment routes with highest ridership) during the first treatment month. Whereas two of the other treatment routes and four of the control routes also experienced growth during that month, none exhibited the same magnitude of increase as did 5 and 17; ridership declined slightly on the remaining routes. Thus, based on a simple examination of these trends, it would appear that the demonstration marketing strategies may have exerted an immediate "promotional" impact -- i.e., an effect similar to that of a short-term free fare promotion -- on these two routes. Indeed, in a further parallel to the impact of many short-term promotions, the sudden increase faded quickly, as ridership on both routes experienced steady decay over the subsequent three months.

On closer examination, however, the role of the demonstration in producing the short-term increase on Routes 5 and 17 becomes unclear. For example, a comparison of the change in ridership from January to March 1984 with the change over the same months in 1983 (see Table 4-1) reveals that Route 5 experienced a higher percentage increase in 1983 than in 1984. Route 17 did have a higher percentage of ridership growth during these months in 1984 than in 1983, but a look at Figure 4-1 shows that that route's ridership rose sharply in April 1983, in marked contrast to a decline between March and April 1984.

Furthermore, while the aforementioned regression model corroborated the possibility of a short-term impact of the demonstration on ridership for Routes 5 and 17, the model also found short-term demonstration period ridership growth to be

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* The actual weekday, Saturday, and Sunday/holiday ridership figures are presented in Appendix D.

** The only significant exceptions to this pattern are the sharp declines in January and February 1983. The reason for the size of this decline is not readily explainable (e.g., weather patterns for the winter of 1983 were not appreciably different from those of the following winter).

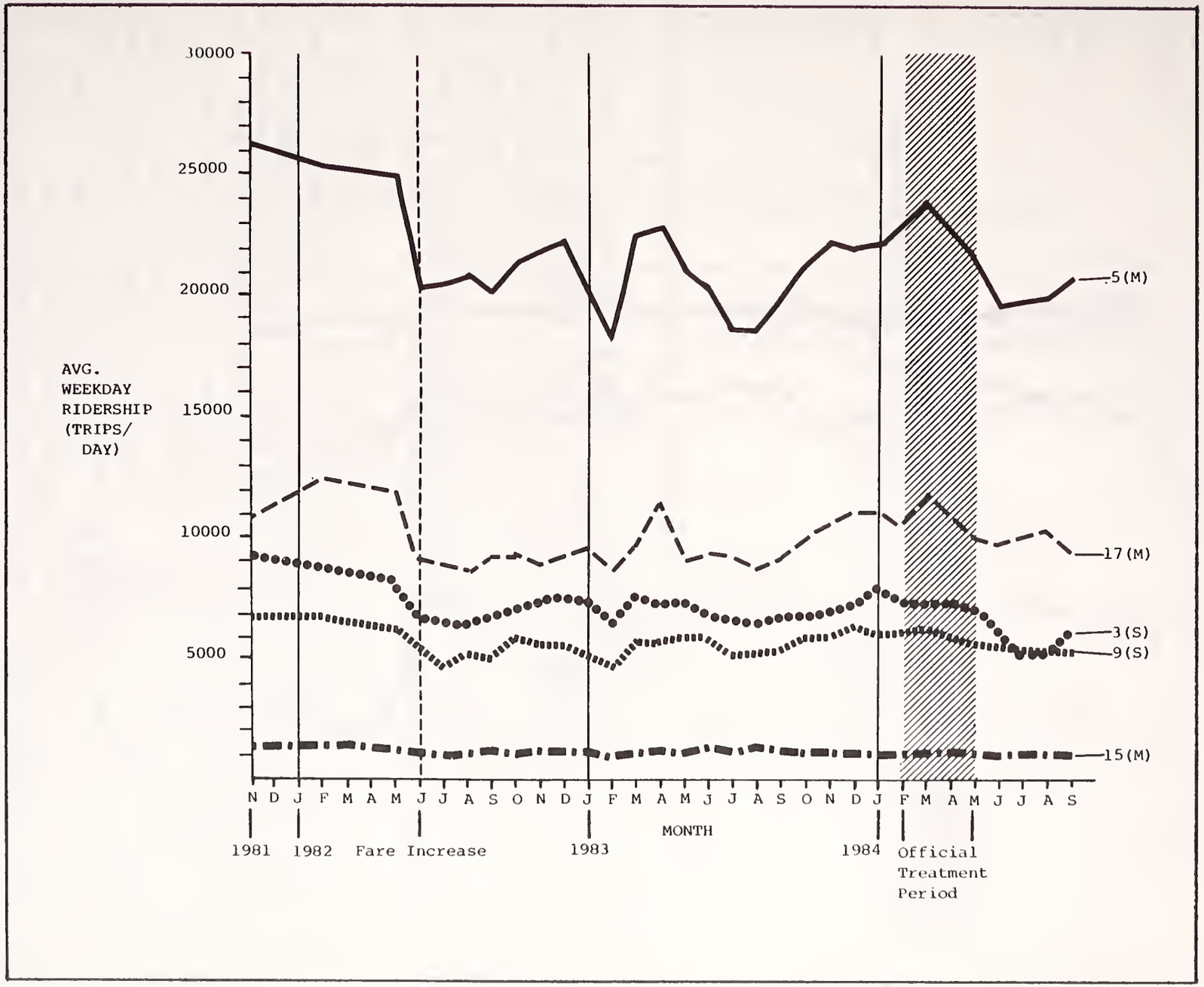


FIGURE 4-1. AVERAGE WEEKDAY RIDERSHIP TRENDS
(TREATMENT ROUTES)

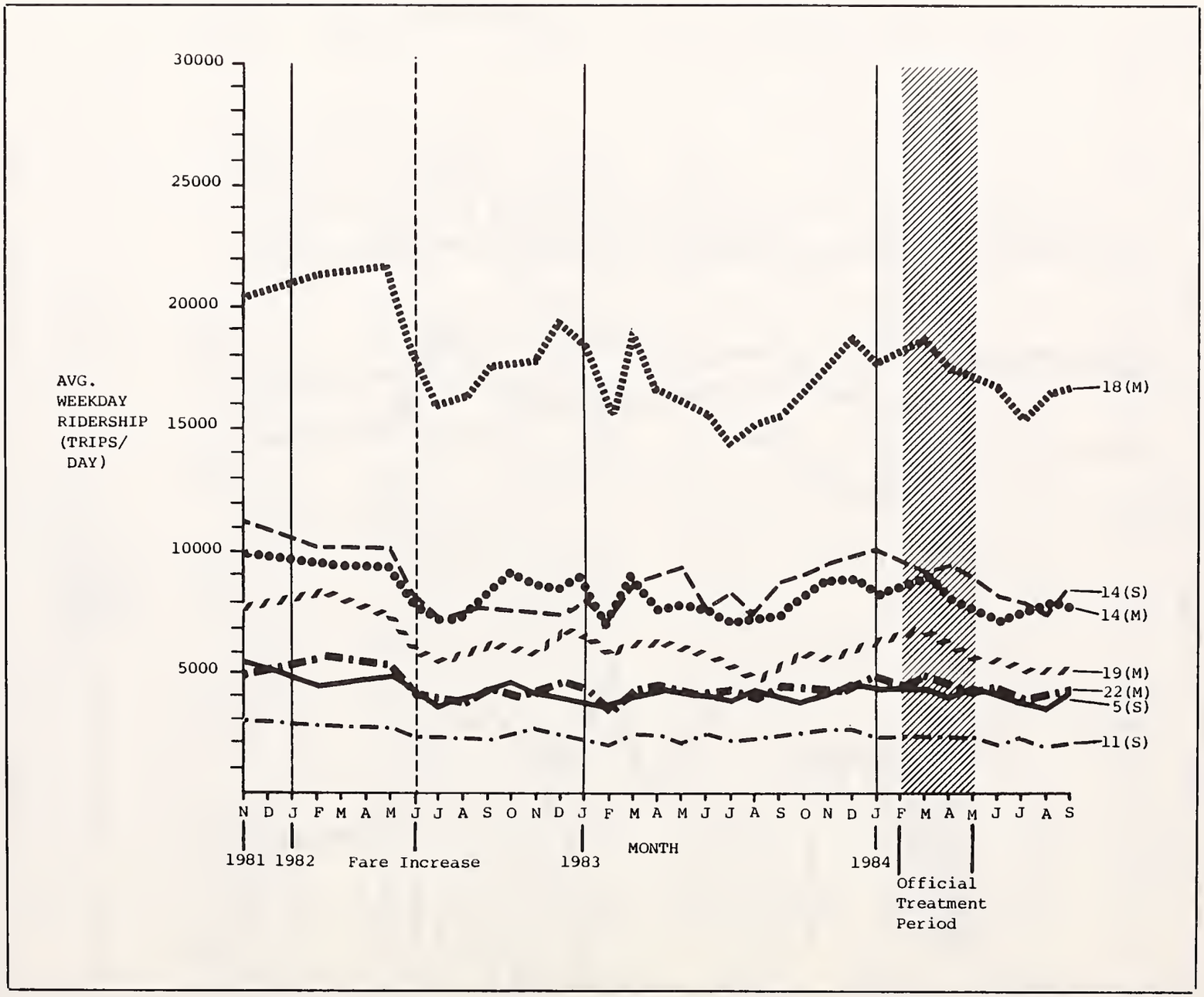


FIGURE 4-2. AVERAGE WEEKDAY RIDERSHIP TRENDS
(CONTROL ROUTES)

TABLE 4-1. SHORT-TERM RIDERSHIP CHANGE (WEEKDAY): 1984 VS. 1983

Route	Percentage Change	
Treatment:	Jan. - March 1984	Jan. - March 1983
5M	7.6%	11.7%
15M	5.5	2.6
17M	6.8	0.8
3S	-4.6	3.1
9S	5.6	11.3
Control:		
22M	-1.3	3.6
18M	5.1	2.5
19M	4.5	-3.9
14M	7.4	16.8
5S	0.7	1.4
11S	4.1	7.6
14S	-7.6	-3.5

significant on two of the control routes (Minneapolis Routes 22 and 19). Although it is certainly possible that the demonstration strategies had some impact on the control routes, it is unlikely that such impact would exceed that on three of the treatment routes. In other words, whereas the model confirms that there was significant ridership growth on those four routes during the treatment period, it does not show any causal relationship between treatment and increased ridership.

In addition, the post-treatment survey results indicate that the demonstration strategies had no impact on individual/household ridership. Survey respondents were asked whether they (or members of their household) ride the bus nearest their home "more or less often" than they "used to ride" on that same route. The responses indicated that, overall, respondents rode less often following the demonstration than before it: between ten and 38 percent of respondents rode "more often," while between 29 and 48 percent rode "less often"; between 32 and 54 percent reported "about the same." Only on route 15 did more people indicate that their bus usage had increased than claimed that their usage had decreased. On Route 5, 25 percent rode more often, 43 percent less often; on Route 17, ten percent rode more often, 48 percent less often. Furthermore, there is nothing in the survey results to suggest that residents of the Route 5 and 17 corridors benefited more from the marketing strategies than did residents of the other corridors. For example, the percentage of respondents who recalled receiving

the Rider's Digest was lowest for Route 17 (33 percent), and the percentage for Route 5 was second lowest (59 percent); responses to other questions indicating reactions to (or impact of) the marketing strategies showed similar results. In terms of specific marketing strategies, Route 5 did receive slightly different treatment than did the other four routes -- i.e., the Passport was available only through the mail. However, there is no obvious reason why this strategy would have generated any more ridership than the alternative, sale of the Passport by retailers. Thus, the demonstration strategies can be said to have had no discernible impact on transit ridership in the short term.

In terms of long term impact, or impact beyond the treatment period, both simple observation of the trends and the results of regression analysis indicate that the demonstration did not produce any identifiable ridership increase on the treatment routes. As can be seen in Figures 4-1 and 4-2, ridership on all routes declined between March and June 1984; treatment Routes 5 and 17 suffered among the most precipitous drops during that period. The overall decline is especially significant when we compare these changes with the changes on the treatment and control routes between March and June 1983. As shown in Table 4-2, all of the treatment routes experienced greater losses in 1984 than in 1983, while three of the control routes had higher losses in 1983 than in 1984.

TABLE 4-2. LONG-TERM RIDERSHIP CHANGE (WEEKDAY): 1984 VS. 1983

Route	Percentage Change	
Treatment:	March - June 1984	March - June 1983
5M	-17.9%	-10.6%
15M	-15.1	22.6
17M	-16.1	-3.7
3S	-16.6	-12.7
9S	-12.6	0.1
Control:		
22M	-8.8	-12.3
18M	-9.8	-18.9
19M	-17.1	-6.1
14M	-18.9	-17.4
5S	-7.9	-3.0
11S	-18.1	-2.2
14S	-11.9	-12.1

While two of the treatment routes experienced ridership growth following the summer decline (in 1984), four of the control routes exhibited similar growth. The overall pattern of drop-off in summer and increase in fall is quite consistent with the general seasonal pattern shown in previous years. Thus, while the "long-term" observation period is rather limited, with the last data point only seven months after the beginning of the treatment period, neither ridership levels within this observation period nor supporting analysis suggests that the demonstration strategies generated higher ridership levels on the targeted routes than would have occurred in the absence of these strategies.

4.1.2 Weekend Ridership Impact

Average Saturday ridership trends for the period ending September 1984 are shown in Figures 4-3 and 4-4. As can be seen in these figures, Saturday ridership experienced even greater month-to-month variation than did weekday ridership. In general though, the trend for most of the routes shows an overall increase beginning in the summer of 1983 and running into the treatment period. Most of the routes experienced substantial increases between February and March 1984 (i.e., the first month of the treatment period). However, the treatment routes in general did not have greater increases than the control routes; in fact, ridership on two of the treatment routes declined during that month, while all seven control routes showed increases. A comparison of the change in Saturday ridership from January to March 1984 with the change over the same months in 1983 (see Table 4-3) shows that ten of the twelve routes experienced higher percentage increases in 1984 than in 1983; one treatment route and one control route had greater growth in 1983.

Over the longer term, the ridership patterns for the treatment and control routes were similar, with ridership on most routes falling between March and May or June and then rising through the rest of the summer. These patterns do not appear to have been affected by the demonstration.

Results of the regression analysis confirm the above observations -- i.e., that the treatment routes experienced no greater ridership increases than did the control routes. Moreover, the model went further, indicating that short-term demonstration period ridership growth was significant on five of the control routes, as well as on three of the treatment routes. In terms of long-term impacts, the analysis showed that there may have been a positive demonstration impact on one of the treatment routes, but also on three of the control routes. As suggested above, it is unlikely that the demonstration's impact on control routes would exceed that on the treatment routes. Thus, we conclude that the demonstration had no discernible impact on Saturday ridership.

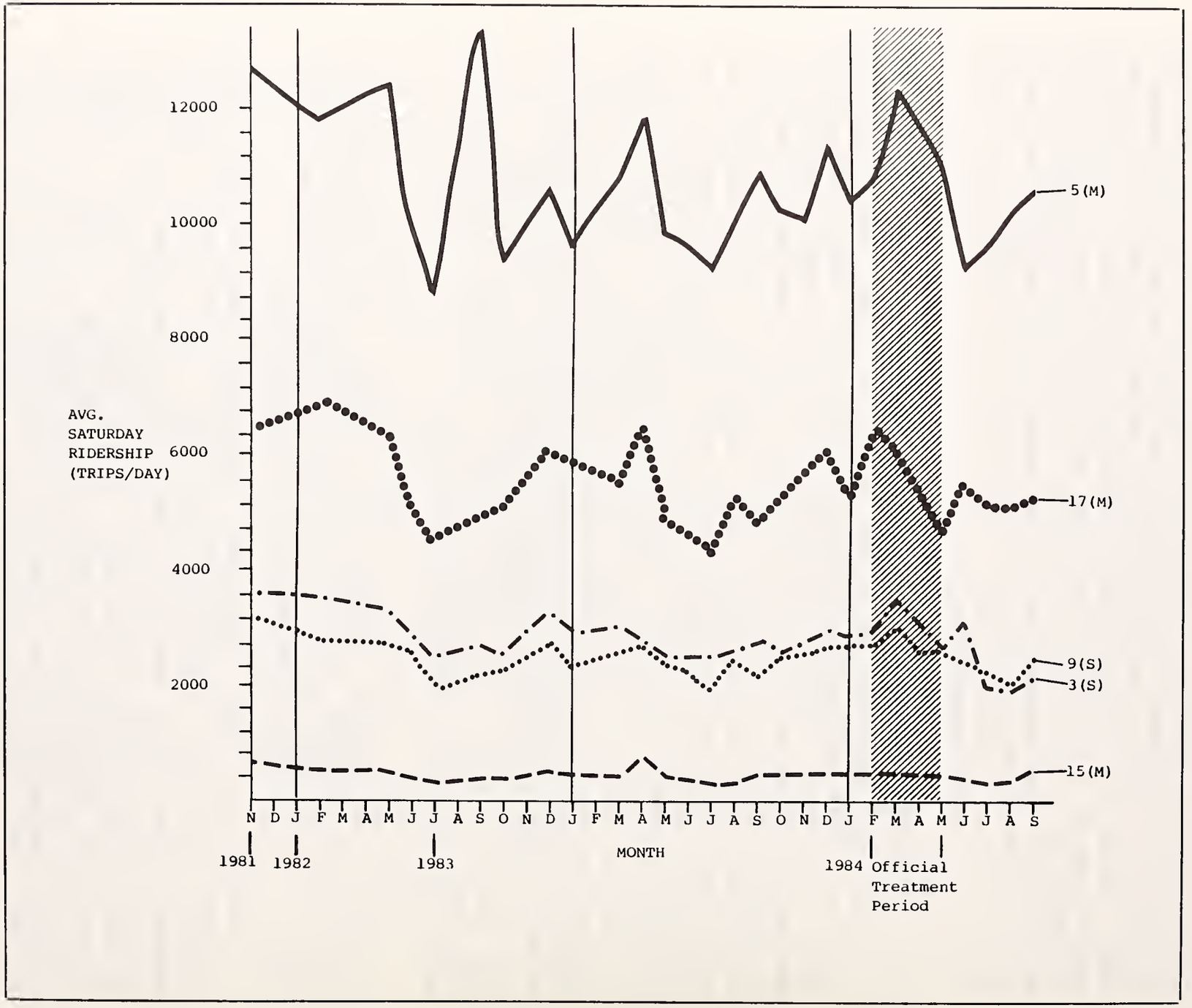


FIGURE 4-3. AVERAGE SATURDAY RIDERSHIP TRENDS
(TREATMENT ROUTES)

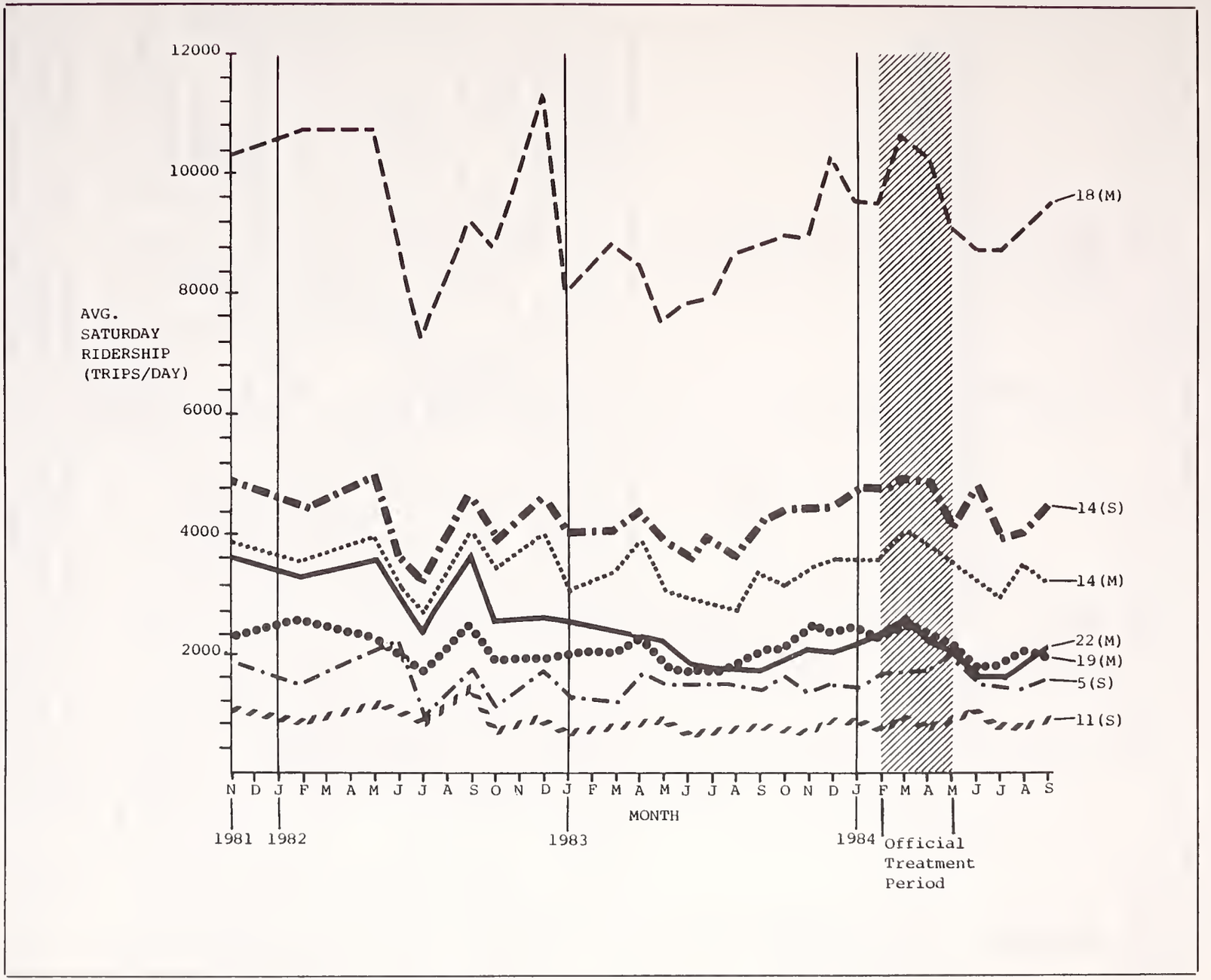


FIGURE 4-4. AVERAGE SATURDAY RIDERSHIP TRENDS
(CONTROL ROUTES)

TABLE 4-3. SHORT-TERM RIDERSHIP CHANGE (SATURDAY): 1984 VS. 1983

Route	Percentage Change	
Treatment:	Jan. - March 1984	Jan. - March 1983
5M	18.5%	10.6%
15M	4.2	-3.5
17M	14.9	-6.1
3S	23.7	4.3
9S	11.9	13.5
Control:		
22M	7.8	0.0
18M	11.5	9.8
19M	15.9	-3.2
14M	13.1	11.8
5S	16.9	-7.6
11S	3.3	23.5
14S	5.2	4.5

Sunday/holiday ridership trends are shown in Figures 4-5 and 4-6. As can be seen, all of the treatment routes and all but one of the control routes experienced increases between February and March 1984. In comparing the change in Sunday/holiday ridership between January and March 1984 with the change for January-March 1983 (Table 4-4) we see that four of the treatment routes experienced substantially greater increases in 1984 than in the previous year. In contrast, only three of the control routes had greater increases in 1984 than in 1983. Beginning in March 1984, unlike the trends for Saturdays and weekdays, ridership on a number of the routes stayed relatively high or returned to the March level after decreases in April. However, it appears that the ridership increased more on the treatment routes (all but Route 15) and stayed higher than it did on the control routes. This difference may well be attributable to the demonstration. The regression analysis partially corroborates this assessment: a positive short-term impact was found on two of the treatment routes (3 and 9), but on only one of the control routes (19).

With regard to long-term trends, it appears from Figure 4-5 that there may have been something of a demonstration impact on treatment Routes 5 and 3. However, the fact that control Routes 18 and 14 (Minneapolis) also show a positive long-term impact suggests that the increases on 5 and 3 may be unrelated (or marginally related) to the demonstration. The regression analysis

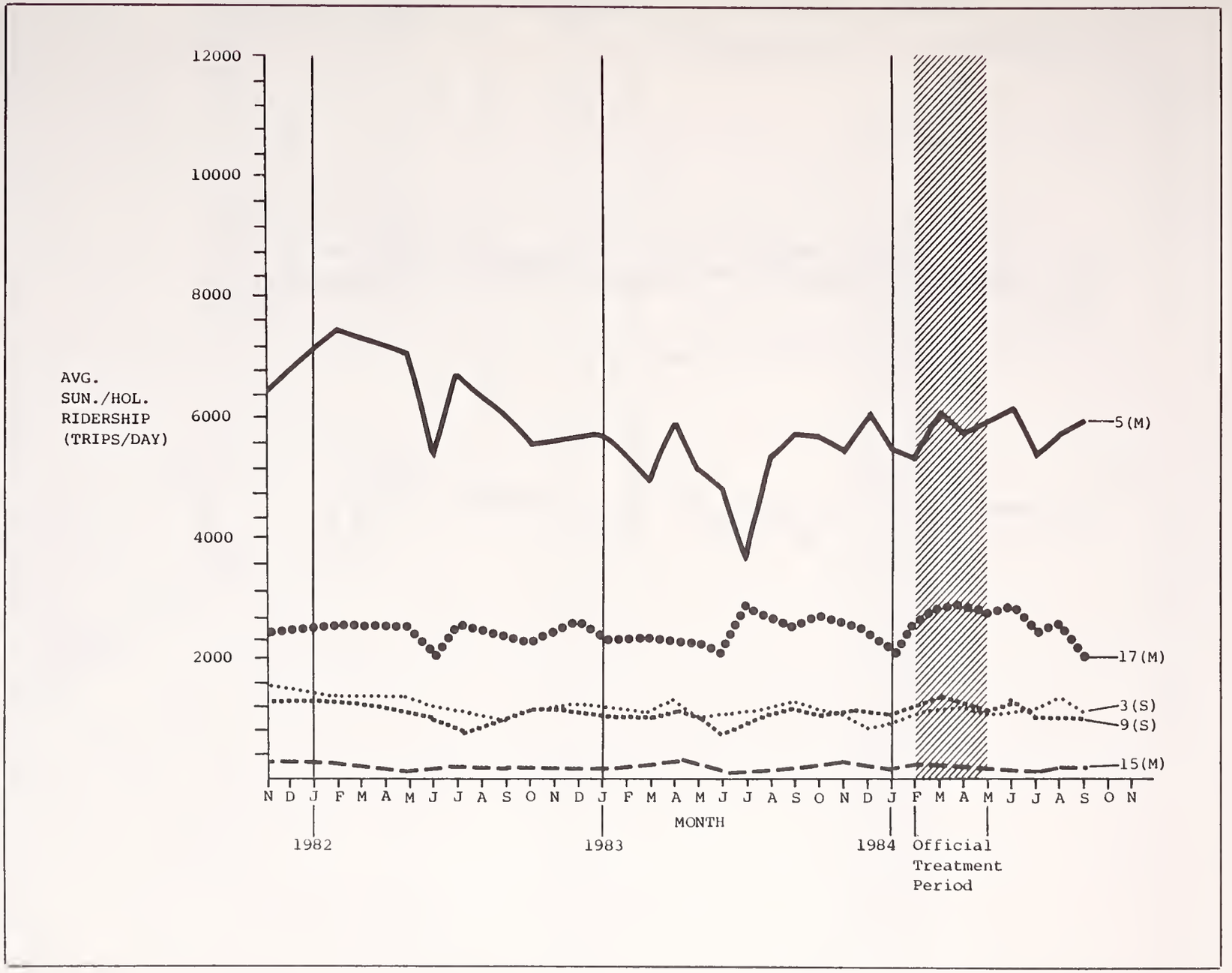
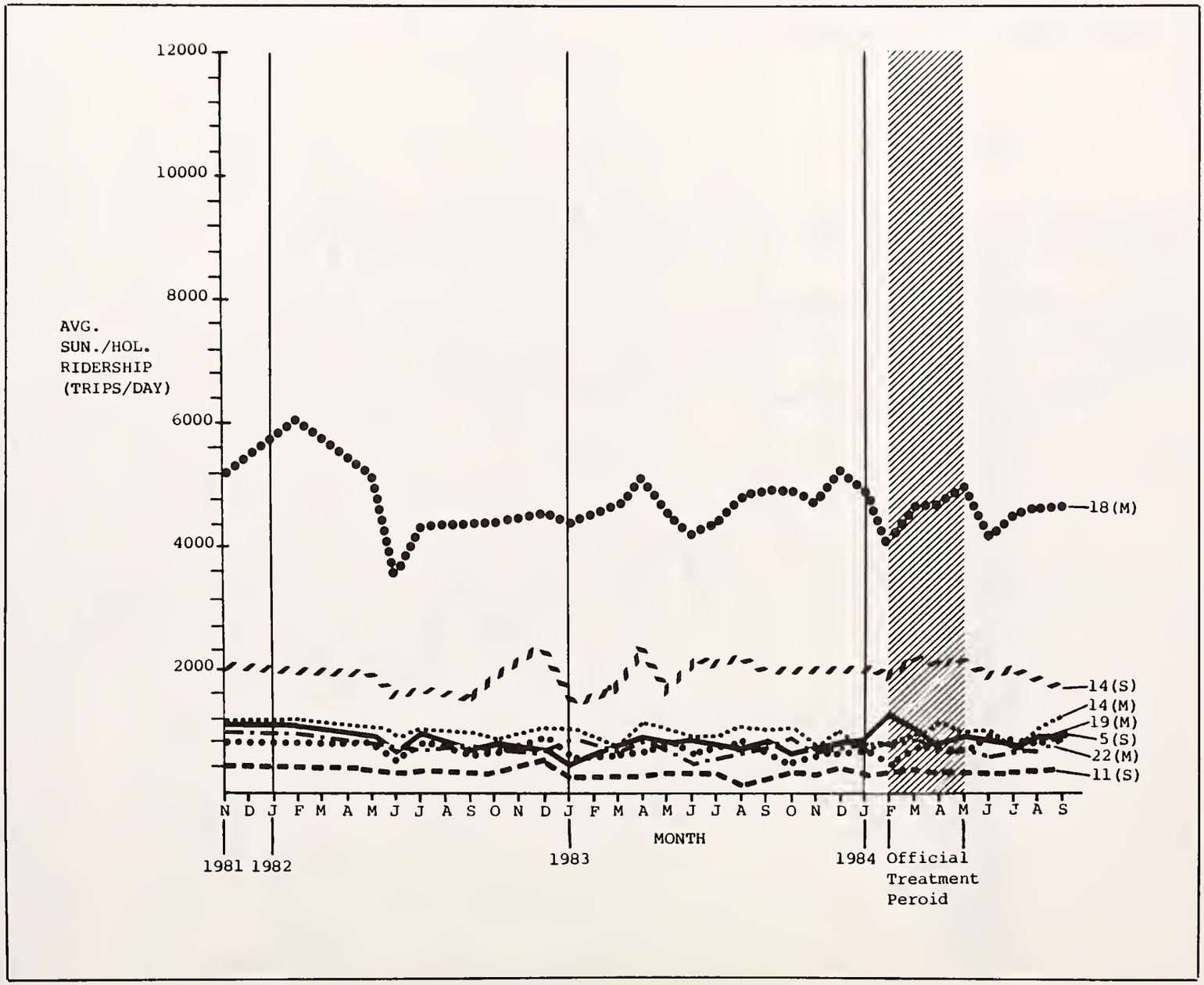


FIGURE 4-5. AVERAGE SUNDAY/HOLIDAY RIDERSHIP TRENDS
(TREATMENT ROUTES)



FIGRUE 4-6. AVERAGE SUNDAY/HOLIDAY RIDERSHIP TRENDS
(CONTROL ROUTES)

TABLE 4-4. SHORT-TERM RIDERSHIP CHANGE (SUNDAY): 1984 VS. 1983

Route	Percentage Change	
Treatment:	Jan. - March 1984	Jan. - March 1983
5M	13.2%	-13.4%
15M	26.5	35.8
17M	42.3	1.5
3S	30.4	-6.4
9S	26.4	-3.2
Control:		
22M	16.4	-17.0
18M	-6.4	5.7
19M	23.7	86.4
14M	35.0	-24.2
5S	-1.6	11.7
11S	23.0	14.3
14S	8.0	18.0

indicated a positive long-term demonstration impact for treatment Route 5, as well as Route 9, but also for control Route 5.

4.2 COUPON DISTRIBUTION AND USAGE

The extent and distribution of usage of When-You-Need-It Cards and Passports was examined, in addition to general ridership impacts. While intended for use on the route along which the buyer/recipient lived, the coupons could be used on any route. In an effort to measure the dispersion of coupons, MTC's drivers were instructed to collect and turn in all coupons when they were "used up" (i.e., after one use for the When-You-Need-It Card and after the sixth use for the Passport). The collected coupons were then to be turned in at the MTC garage each day and catalogued by route and date.

Unfortunately, information on usage of these coupons is very limited. As explained in Chapter 3, relatively few of both types of coupons were collected, or at least turned in to the MTC by drivers. Only 1344 Passports, or 15 percent of the 8900 sold, were delivered to MTC by drivers. Most of those Passports unaccounted for were presumed to be used up but not collected. Some Passports were doubtless lost or accidentally thrown away before being fully used; however, because people had to pay for them, the incidence of such occurrences was probably small.

With regard to the distribution of usage of the Passport, 876 of the 1344 coupons turned in to MTC were tabulated according to the route on which they were collected.* This distribution is shown in Table 4-5. The greatest numbers of Passports turned up on four of the five treatment routes; however, the fifth treatment route (17) had fewer coupons turned in than three non-treatment routes. In fact, the coupons turned up on nearly 70 percent of MTC's routes in this tabulation, and 46 percent of the Passports tabulated were turned in on non-treatment routes. This suggests that 1) a substantial number of people heard about the Passports from friends or relatives and went to the participating retailers to buy them (or had friends buy them), and/or 2) a substantial number of MTC bus riders use more than one route or use routes away from their homes. It should be pointed out that many of MTC's routes are quite close to each other -- several are coterminous along some segments. Nevertheless, the dispersion throughout the MTC system is noteworthy.

While we have only partial information on the ultimate distribution of the Passports, we do know where they were purchased, based on the sales receipts turned in by the retailers, as well as from MTC's own records of mail-order sales for the Route 5 corridor. A total of 7787 Passport sales were reported by the participating merchants: 2617 (34 percent) by outlets along Route 15; 1882 (24 percent) along Route 17; 1790 (23 percent) along Route 9; and 1498 (19 percent of the total) along Route 3. This translates into an average of 173 per sales outlet, with a route-by-route average of 238 per outlet on Route 15; 148 on Route 17; 128 on Route 9, and 214 on Route 3. The mail request alternative was apparently less attractive, as only 1113 mail orders were filled.

In considering the impact of the demonstration marketing strategies, it should be kept in mind that not all of these sales represent separate buyers. Many people doubtless bought two Passports at a time, the limit established by the MTC. Furthermore, when retailers were asked what percentage of the individuals who purchased the Passport at their stores were repeat buyers, 87 percent of those responding reported an estimate of 40 percent or higher; 57 percent of the retailers reported that 60 percent or more were repeat purchasers. Thus, the number of individuals who bought the Passport was clearly considerably smaller than the number sold.

* Tabulation by date was apparently quite sporadic, and no record had been compiled by MTC as of this writing. In addition, it should be kept in mind that the route-by-route figures reported here are influenced by the conscientiousness of particular drivers, and thus may reflect a biased distribution of usage.

TABLE 4-5. DISTRIBUTION OF COUPON USAGE*

Route	No. of Passports	No. of When-You-Need-It Cards	Avg. Weekday Ridership**
St. Paul			
Treatment:			
3	145	119	7131
9	122	73	5763
Non-treatment:			
4	17	20	4290
5	5	15	4318
7	4	5	3477
8	--	7	3525
10	7	10	1387
11	1	4	2302
12	14	28	4973
14	38	46	8980
15	7	6	929
18	2	--	351
20	2	5	254
29	2	6	1117
34	1	1	456
35***	2	--	135
52***	6	2	760
Subtotal	375	347	49,894
Minneapolis			
Treatment:			
5	134	297	21492
15	55	37	1139
17	18	21	10080
Non-treatment:			
1	1	--	1852
2	2	4	2670
3	2	1	394
4	9	17	9184
6	4	8	8295
7	4	34	4497
8	--	61	6260
9	6	6	6181
10	1	23	8642
11	--	5	509

(continued)

TABLE 4-5. DISTRIBUTION OF COUPON USAGE*
(continued)

Route	No. of Passports	No. of When-You-Need-It Cards	Avg. Weekday Ridership**
12	10	7	3896
14	19	42	7716
18	23	37	17192
19	5	29	5654
20	1	24	3169
22	10	20	4357
23	1	--	1159
24	3	--	1378
25	7	--	1486
26	--	2	1578
27	4	16	2487
28	--	10	5500
29	1	--	269
35***	65	15	6361
38	13	--	243
44***	1	--	562
45	2	4	1412
47	4	--	1862
48	--	4	393
51	1	2	2900
52***	17	7	3918
62	1	--	15
67	4	--	1276
81	4	--	343
Subtotal	427	735	156,321
Intercity			
16	33	54	21150
21	17	47	15537
94	24	18	5614
Subtotal	74	119	42,301
Total	876	1,203	248,516

* These figures represent the number of coupons turned in to MTC by drivers and tabulated by route (the particular route was not indicated/recorded for all coupons turned in).

** These figures are for May 1984.

*** Routes "35," and "44," and "52" each represent a group of several different express runs.

Of the approximately 55,000 When-You-Need-It Cards enclosed in the first Rider's Digest, 1729, or three percent were turned in to the MTC. The remainder fall into one of the following categories: a) used but not collected (or not turned in) by the driver; b) never used (e.g., thrown away, lost, or kept but forgotten about); or c) never received.

In terms of the distribution of usage of the When-You-Need-It Cards, 1203 of the 1729 cards turned in to MTC were tabulated by route; the distribution is also shown on Table 4-5. As can be seen from the table, the use of When-You-Need-It Cards was somewhat more evenly distributed throughout the system than the Passport. While the Passport was used on a greater number of routes, the use of When-You-Need-It Cards was less concentrated among the treatment routes; 55 percent of the free-ride cards turned up on non-treatment routes. The three highest concentrations of usage were on treatment routes (5, 3, and 9), however, with Route 5 receiving nearly 25 percent of the total. Route 15 had a lower concentration than half a dozen non-treatment routes, and Route 17 had a lower total than 11 non-treatment routes. The broad dispersion of these cards clearly indicates that transit usage among the residents of the treatment route corridors is by no means limited to the routes closest at hand; along that line, it must also be kept in mind that the fact that a When-You-Need-It Card -- or a Passport -- was used on a particular treatment route does not mean that the coupon was received or purchased along the same route.

The post-treatment survey provides some additional information on When-You-Need-It Card usage. As explained in Chapter 3, only 58 survey respondents reported having used the card; that represents 12 percent of the 500 survey respondents to whom it would have been sent (i.e., all but those along Route 22). An additional 20 percent of the survey respondents reported that they still had the card in their possession. However, it is likely that many of those people never actually used the card (i.e., some doubtless lost it, some probably forgot they had it, and some likely never got around to using it).

To summarize, while the information on distribution of usage of the two types of fare coupons is quite limited, the available data do show the broad dispersion of both coupons. When-You-Need-It Cards and Passports turned up on most of MTC's routes. While the greatest concentrations of the coupons generally occurred on treatment routes, a number of non-treatment routes received significant quantities of both types of coupons -- higher numbers than some of the treatment routes, in fact. This dispersion may mean that incentives have to be limited to use on particular routes if that is where ridership increases are specifically desired.

4.3 ATTITUDES OF RETAILERS

An important aspect of the demonstration is the participation of retail establishments and restaurants in the sale of the Passport. It is useful in assessing the impacts of the demonstration to examine retailers' views of the project and their role. A brief survey, designed by Anderson & Berdie and the MTC, was sent to each participating establishment; 23 of the 45 participating retailers completed and returned it. The survey solicited information concerning the retailers' reasons for participating, the impact of their participation on their business, their feelings about the project and their role, and their interest in participating in additional MTC Programs; the instrument itself is included in Appendix C.

Regarding reasons for participating in the project,* 50 percent of those responding to the question said they wanted to generate more "customer traffic"; 35 percent were attracted by the free advertisements; and 30 percent wanted to "provide a service for their customers." The remaining reasons included "decision made at higher corporate level" (ten percent), "for purposes of good will" (ten percent), and to "receive the commission" (five percent).

Since the desire to increase customer traffic was the most important reason given for participation, the effect of this participation on business is clearly an important issue. Over 60 percent of the survey respondents claimed that the Passport promotion did not directly increase business for them. When asked what they liked best about the project, however, nearly 70 percent provided statements to the effect that it increased store traffic, provided customer convenience (which "creates good will"), pleased customers, was "good for business," or actually increased sales. The remainder liked the project for more altruistic reasons, such as that it increased bus use, simplified the fare, or provided a "community service."

Concerning satisfaction with the advertisements in the Rider's Digests, 39 percent were "somewhat satisfied," 30 percent "very satisfied," and 22 percent "dissatisfied." On the other hand, 87 percent felt that the "effort expended for the project was worth the free ad and the $15 monthly commission." When asked for the number of staff hours per week expended in selling Passports, 50 percent of the respondents reported 0-1, 45 percent 1-2, and the single remaining respondent, 2-5.

Finally, participating retailers were asked about their willingness to take part in other MTC programs. When asked if they would be "interested in participating in a similar program

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* Several respondents indicated more than one reason; therefore, the percentages total more than 100 percent.

again," 65 percent replied yes, 26 percent maybe, and the remainder no. When asked about their interest in "selling monthly passes and commuter tickets for the MTC on a regular basis," 52 percent replied yes, 30 percent maybe, nine percent no, and nine percent indicated that they already do. When asked if they would be interested in "displaying route and schedule information" about their local route, 65 percent indicated yes, 22 percent maybe, and nine percent no.

To summarize, while the majority of the participating retailers felt that their participation in the Passport program did not directly increase their business, over two-thirds indicated that it benefited them in some way (e.g., increased store traffic, was "good for business," etc.). Since the time required to sell Passports was apparently minimal, and the MTC provided a free advertisement, as well as a commission for sales, any perceived benefit obviously made participation worthwhile. Hence, it is not suprising that 90 percent of those responding expressed at least tentative willingness to take part in other similar MTC programs.

4.4 PROJECT COSTS

The overall "costs" of the demonstration can be divided into two categories: actual project expenditures and revenue lost through patron use of the Passport and When-You-Need-It Cards.

4.4.1 Project Expenditures

Actual project expenses can be separated into two basic categories: development and operating expenditures. The totals for these two categories are summarized in Table 4-6. Included under development are the following activities: performing background research and analysis such as designing, administering and analyzing the pre-demonstration survey and reviewing the results of other marketing demonstrations; developing the specific marketing strategies; designing the actual marketing materials; recruiting retailers; and administration during this phase of the project.

The remaining expenses, which fall under the operating category, cover the following activities: producing, printing, and distributing/mailing marketing materials; follow-up research and analysis, including design, administration, and analysis of the retailer and post-treatment telephone survey; payments to retailers; and administration, including monitoring the contractors, collecting Passport receipts from the retailers, compiling data for the evaluation, and reporting to UMTA. As shown on the table, roughly 60 percent of the project operating costs, or approximately $150,000, was attributable to

TABLE 4-6. PROJECT EXPENDITURES

Development Expenditures	
administration and recruitment of retailers (MTC labor and indirect expenses)	$ 30,782
research and development (Anderson & Berdie)	40,210
design of marketing materials (Carmichael-Lynch)	14,782
Total	$ 85,775
Operating Expenditures	
administration (MTC)	$ 13,869
post-treatment research and analysis (Anderson & Berdie)	19,358
production of marketing materials (Carmichael-Lynch)	14,297
printing and miscellaneous	23,926
payment to retailers	2,025
mailing	10,975
Total	$ 84,450
Total Project Expenditures	$170,225

the production, printing and distribution of the marketing materials.*

The funds expended on follow-up research/analysis, approximately $20,000, were essentially related to the fact that this was a demonstration; while a transit operator would certainly be interested in finding out the impact of a new marketing strategy, it is doubtful that any operator would spend this much toward that end. Finally, administration expenditures in both the development and operational phases of the project included some demonstration-related activities such as evaluation data compilation and reporting. In all, the expenses that can be considered strictly demonstration-related were on the order of $25,000-$30,000.

Of the total project expenditures ($170,225), roughly half was spent on development and half on operation. A considerable amount of the total budget (nearly $60,000) was expended on research and analysis related to, first, the development of the marketing strategies, and then on assessment of the impacts of these strategies (independent of this evaluation).

4.4.2 Revenue Lost Through Use of Coupons

An additional cost category is revenue that is lost through use of the discount or free fare coupons. Essentially, MTC "loses" revenue in either of the following situations: 1) when a current transit rider uses a free fare coupon for a trip he/she ordinarily would have paid for; or 2) when a regular transit rider uses a Passport and thereby gets a free trip he/she ordinarily would have paid for. Persons using the Passport who would not otherwise have made any trips are considered to have produced revenue for MTC. Those persons using the When-You-Need-It Card for their first transit trip--or for any trips they otherwise would not have made--produce neither gain nor loss. To further complicate matters, MTC actually gains revenue in cases where a rider uses a Passport only for off-peak travel, because he/she has paid $3.75 for the Passport (five trips at the $.75 peak fare), but has taken six off-peak trips, with a value of $3.60, for a gain to MTC of $.15.

Obviously, determining the amount of revenue lost through the demonstration requires detailed before/after data on individuals' travel behavior, as well as a tabulation of Passport use by time of day. The information produced in this demonstration is quite limited in terms of those details. However, it is possible to develop a rough estimate of the

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* The MTC's expense reports did not separate out the cost of designing and producing the different materials (i.e., the Rider's Digest, the Passport, and the When-You-Need-It Card); thus, unit costs cannot be calculated.

maximum revenue loss incurred by MTC. The post-treatment survey did ask whether persons who used the When-You-Need-It Card "used the card when they wouldn't have ridden otherwise." As indicated earlier, a total of 58 survey respondents (or 12 percent of the total) reported using the card, and, of these, 12 (21 percent of the total who used the card) "would not have ridden otherwise." Thus, if we assume that 12 percent of those who were sent the card used it,* and 79 percent of those who used it would have made the trip whether or not they had the card, we arrive at a potential loss of between $3000 and $4000 (i.e., the difference in impact between $.60 and $.75 per trip) for the When-You-Need-It Card.**

Regarding the Passport, the information on usage is, as indicated previously, very limited. Because their usage was not tabulated by time of day,*** we have no indication as to the breakdown of peak vs. off-peak usage. We can estimate the maximum revenue loss attributable to the use of the Passport by assuming that all Passport trips were made during peak periods. The post-treatment survey asked of persons who bought the Passport if the card caused them to "ride more than they would have without it." Only two of the nine respondents (22 percent) who purchased the coupon reported that they rode more than they would have otherwise. Applying the 78 percent who did not ride more to the total number of Passports sold (8900) produces a total of 6942 buyers who each got one free trip. At $.75 per trip, the maximum revenue loss attributable to use of the Passport is therefore approximately $5000. However, it is doubtful that all Passport users made all of their Passport trips during the peak; furthermore, it can be assumed that at least a few purchasers did not fully use their Passports. Thus, the actual loss attributable to the Passport is likely somewhat less than this estimate.

The total revenue loss resulting from the demonstration can thus be roughly estimated to be on the order of $8000-$9000. However, the Passport portion is probably overestimated in light of the uncertainty surrounding the temporal distribution of trips. There was certainly some loss of revenue, as

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* As indicated earlier, only three percent of the total distributed were actually turned in by drivers; thus, it is impossible to determine the true number of cards used.

** This was calculated as follows: 0.12 x 55,000 = 6600; 0.79 x 6600 = 5214; 5214 x $.60 = $3128; 5214 x $.75 = $3911.

***Indeed, it would have been very difficult to tabulate the time of day of each trip taken using a Passport, since the cards could only be collected by drivers on the sixth use. As it turned out, MTC found it infeasible to tabulate even the sixth trip on a temporal basis.

there generally is in free or reduced fare programs, but the estimate here is very rough.

4.5 PROJECT REVENUES

The ultimate aim of the demonstration was to generate increased revenue for MTC. In a project such as this, new revenue is generated in two basic ways: 1) through transit usage by new riders -- persons who start using the bus as a result of one or more of the marketing techniques; and 2) through increased transit usage by current riders -- i.e., persons who use the bus on an occasional basis, but then begin riding more frequently as a result of the marketing strategies. Unfortunately, due to the nature of the project's data collection procedures, it is impossible to determine with any accuracy the incidence of increased riding attributable to the demonstration strategies. The only indication of changes in individuals' travel patterns comes from the post-treatment survey. As discussed in Section 4.1, the responses indicated that respondents' use of transit experienced an overall decline. Based on this information, it would appear that MTC gained no revenue as a result of new or increased transit usage.

In terms of the revenue impact of changes in overall ridership, there was little apparent ridership impact resulting from the demonstration strategies. As explained in Section 4.1, Sunday/holiday ridership may have been affected to some extent; however, the available data do not permit the calculation of the magnitude of this impact. Thus, it is impossible to determine the impact on system revenue. While MTC did take in revenue from the sale of the Passport ($33,375), this did not represent a net revenue gain.

5. SUMMARY AND CONCLUSIONS

This chapter summarizes the key evaluation findings and presents those findings that may be transferable to other locations.

5.1 KEY FINDINGS/RESULTS

5.1.1 Impact on Knowledge and Usage of Transit

- In comparing results of the "before" and "after" surveys, it appears that the demonstration marketing strategies had little effect on corridor residents' knowledge and level of usage of transit. For example, the percentage of all survey respondents who "know that a bus route runs near their home" was significantly lower in the after than in the before survey for two of the routes and virtually the same in the two surveys for the other four routes. The percentage who "know enough about where the bus goes to ride" was significantly lower in the after than in the before survey for one of the routes and virtually the same for the other five routes. Of course, the before survey revealed a rather high level of familiarity among corridor residents with nearby transit routes and the MTC in general; this likely accounts for the absence of any impact of the marketing strategies.

- The marketing strategies were moderately successful in reaching their intended market. Approximately 60 percent of survey respondents within four of the target corridors recalled receiving the Rider's Digest; 33 percent of the fifth corridor's residents remembered it. Between 84 and 97 percent of those respondents who remembered seeing the newsletter recalled receiving only one of the two issues. This may have been due to the similar appearance of the two editions, as well as to an addressing/mail delivery problem. Over 90 percent of those respondents who remembered the Rider's Digest at least "glanced through it" and 33 percent "read it thoroughly." However, less than one-third of those recalling seeing the Rider's Digest "found the enclosed route map and schedule helpful." Less than three percent of respondents "rode the bus to new destinations" as a result of receiving the Rider's Digest.

5.1.2 Distribution and Usage of Free Fare and Discount Coupons

- The distribution of Passports through retailers was more successful than through the mail. Each of the four routes on which retailers participated sold an average of 1947 Passports, or 22 percent of the total number sold (8900), while only 1113, or 12 percent, were sold through the mail on the fifth route. Retailers reported that between 40 and 60 percent of the people who bought Passports from them were repeat buyers.

- Few household survey respondents bought Passports, but those who did cited the following reasons for doing so: "no need for exact change," "systemwide availability," "the free ride bonus," and "the low cost." Those respondents who did not purchase a Passport reported the following reasons: "do not use the bus enough (or at all)," "buy the monthly pass," and "senior citizen" (and therefore eligible for the discount fare).

- Patterns of temporal distribution of Passport usage were impossible to determine, since those used coupons returned to MTC by drivers were not tabulated by time of day of usage -- and most were not tabulated by date. In terms of geographic distribution, nearly ten percent of the Passports sold were tabulated by route (i.e., the route on which they were collected, following their sixth use). The coupons' dispersion was quite widespread, as 45 percent of those tabulated were turned in on non-treatment routes; furthermore, the coupons turned up on all but six routes in the MTC system.

- It was impossible to determine how many of the When-You-Need-It Cards were used, since only three percent of the 55,000 sent out were turned in to MTC by drivers. Approximately 17 percent of the survey respondents reported that they had used the cards, although two thirds of those persons who had not used them indicated that they still had them.

- The When-You-Need-It Card apparently generated little new use of transit: under three percent of those survey respondents who reported having used the card indicated that they used it for a trip they would not otherwise have made.

- The geographic dispersion of the When-You-Need-It Cards was significant: 55 percent of the cards that were tabulated by route were used on non-treatment routes, and at least one card turned up on nearly 70 percent of MTC's 75 routes. Several non-treatment routes experienced higher concentrations of card use than did two of the treatment routes.

5.1.3 Impact on Participating Retailers

- The single most important reason cited by retailers for taking part in the demonstration was "to generate more customer traffic; "free advertisements in the Rider's Digest" and the opportunity to "provide a service for customers" were also major selling points.

- Over 60 percent of those retailers responding to the retailer survey indicated that the Passport program did not actually increase their business. However, nearly 70 percent of those responding approved of the Passport program because it increased store traffic or was generally "good for business." The other 30 percent of responding retailers liked the program because "it increased bus use," "simplified the fare," or provided a "community service."

- In general, the participating retailers were glad to have taken part in the program; over 90 percent indicated at least tentative willingness to participate in other similar MTC marketing programs. Virtually all survey respondents reported that very little extra time was required to sell the Passports.

5.1.4 Ridership Impacts

- Because of variation in ridership levels, it was very difficult to isolate the impact of the demonstration on individual treatment routes' ridership. Ridership is affected by a variety of external factors (e.g., fuel prices, unemployment levels, seasonality, etc.), and fluctuated considerably before, during, and after the treatment period. A time series regression model, developed in an attempt to isolate the effect of the demonstration, generally failed to show any clear impact; in most instances the model found demonstration period ridership growth to be at least as significant on control routes as on treatment routes.

- In observing simple ridership trends, there would appear to have been some short-term impact on two of the treatment routes, as their ridership rose significantly during the first month of the treatment period. However, the regression analysis, as well as the results of the household survey and a comparison with the previous year's ridership trends, make the extent of the demonstration's impact unclear. For instance, the post-treatment survey indicated that, on balance, respondents along the two corridors used transit less often following the demonstration than before it.

- The demonstration strategies may have produced some ridership growth on treatment routes on Sundays/holidays. The increases during and after the treatment period were generally of a greater magnitude than those of the control routes.

5.1.5 Economic Impacts

- Total expenditures on the demonstration were $170,225; UMTA funds constituted 80 percent of the total. The total was equally divided between project development and operation; roughly 60 percent of the operational expenses were for production, printing, and distribution of the marketing materials.

- Approximately 35 percent of project expenditures were spent on research and analysis related to the development of specific strategies, and on assessment (separate from this evaluation) of the impacts of those strategies. Roughly 15 percent of the total, including some of the research/analysis expense, can be considered strictly demonstration-related and would typically not be incurred in a non-demonstration project.

- Revenue lost through the use of the When-You-Need-It Cards and Passports represented an additional project cost. The limited data available on individuals' travel behavior and the lack of information on time-of-day distribution of coupon usage hampered the calculation of lost revenue. However, based on available information records, it can be estimated that there was a potential loss of $3000 - $4000 from the use of the When-You-Need-It Card and a maximum loss of $5000 from use of the Passports.

- With regard to increased revenue from the use of transit by new riders or increased usage by current riders, available data indicated no discernible gain. Based on the household survey results, respondents used transit no more often following the demonstration than before it.

5.2 TRANSFERABLE FINDINGS AND HYPOTHESES

Because this project represented a distinct departure from most other marketing demonstrations, the evaluation findings are especially valuable -- to UMTA, to the MTC, and to other transit systems seeking new marketing approaches. The major transferable findings are:

- In developing and implementing target marketing strategies, it is important to match the strategies to specific needs, as identified through market research. For instance, transit information dissemination strategies should not be directed toward corridors in which the residents display high levels of knowledge about nearby transit routes; similarly, promotional strategies should not be directed toward corridors in which high percentages of the residents have indicated that there is nothing that the transit operator could do to influence them to use transit.

- The broad dispersion of reduced and free fare coupons in this demonstration suggests that, at least in a system with closely-spaced routes, many people's transit usage is by no means restricted to the routes nearest their homes. Therefore, an attempt to generate increased ridership on specific routes through route-specific marketing strategies may not be effective unless the incentives are limited to use along the specified routes.

- In assessing the effectiveness of various marketing strategies, good data collection is essential. Use of free fare or discount coupons should be carefully tracked, for example, so as to monitor temporal and geographical dispersion. It is therefore important to set up reliable mechanisms to collect and record such coupons.

In addition to these conclusions, several hypotheses are suggested by the project results. These findings cannot be proven with data from this project, but suggest areas for further research:

- In securing the participation of retailers in a fare prepayment project, offering nominal reimbursement appears to be an effective means of generating cooperation.

- Selling fare prepayment tickets through retailers may be more effective than selling through the mail.

- Sales of fare prepayment tickets may be limited if tickets represent a savings for only certain groups of users. For instance, a ticket providing a discount only for peak use will probably have limited appeal to predominantly off-peak riders. Furthermore, sales of fare prepayment tickets may also be limited by availability of monthly passes or special discount fares for the elderly and handicapped, especially where passes are priced so as to offer a discount for heavy use.

- If a series of direct mail newsletters or brochures are sent close together (i.e., within a couple of months), and subsequent editions look like the first edition, recipients may disregard them, not realizing that they are different in content. In some situations, it may be preferable to send only one edition per year.

- Direct mail distribution of route maps and schedules is theoretically a useful marketing tool, but this information should be in a form that is convenient to use; a large map/schedule may simply be too cumbersome to use. Furthermore, in systems with closely-spaced routes, a good system map may be more useful to many people than a map for a single route.

5.3 CONCLUDING REMARKS

This evaluation has examined the results of an innovative transit marketing program. While the combination of strategies applied in this demonstration was apparently not very effective in terms of either raising the level of knowledge of transit or increasing ridership on targeted routes, one should not conclude that these strategies are inherently ineffective. They could prove useful if applied in the appropriate situations. However, this demonstration has shown that marketing strategies must be carefully matched to specific market research findings if increased ridership is to be achieved. The findings produced by this demonstration should be considered carefully by other transit systems contemplating introducing such strategies.

APPENDIX A. "BEFORE" SURVEY AND RESULTS

Sequence No. ___ ___ ___ ___

2 2 1

___ ___ ___ ___ ___

MTC VARIABLE FARE SURVEY

(Interviewer Code This)

1. Sex of respondent

____ Male

____ Female

2. There is a bus route near you that goes along Portland, turns onto 24th Street, then goes along Cedar Avenue until 42nd, turns and then continues on 34th Avenue South. Did you know that this bus runs within three blocks of your home?

a.____ Yes

b.____ No (GO TO #9)

3. What is the route number of this bus?

a.____ Correct number (Route #22)

b.____ Incorrect number

c.____ Don't know

4. Do you know enough about where this bus goes to ride it?

a. ____ Yes

b. ____ No

5. How often do you or members of your household ride this bus? (If respondent answers "once in a while" read options)

a.____ 3 or more days/week
b.____ Once or twice a week
c.____ Once or twice a month
d.____ Once or twice a year
→ Go to Q #6

e.____ Not at all (GO TO Q #7)

f. ____ Live alone/never go out (GO TO Q # 21)

6. Is this more or less often than you used to ride this bus?

a. ____ More often
b. ____ Less often
c. ____ About the same
→ Go to Q #9

7. Did you used to ride this bus?

a. ____ Yes (GO TO Q #9)

b. ____ No (GO TO Q #8)

c. ____ Have ridden once or twice (GO TO Q #9)

8. Is there anything the MTC could do to cause you to ride this bus?

a. ____ Yes

b. ____ Maybe

c. ____ Don't know

d. ____ No (GO TO Q #19)

9. What are the reasons you don't ride the bus more often? (Probe: Are there any other reasons?) (check all mentioned)

a. ____ Have o car/ar use a cab (Probe: Why do you prefer to use your car)

b. ____ Inconvenient (Probe: What is it about the bus that is inconvenient)

c. ____ Buses don't go where I go

d. ____ Buses not on time

e. ____ Buses don't come often enough

f. ____ Buses too slow

g. ____ Don't feel safe on bus

h. ____ Too far to walk to get to bus

I. ____ Need car at work

j. ____ Fares too high

k. ____ Buses too crowded

l. ____ Dirty buses

m. ____ Physical condition of buses (old, dented)

n. ____ Discourteous drivers

o. ____ Don't like people who ride buses

p. ____ Never have exact change

q. ____ Walk where I need to go

r. ____ Don't know where bus goes

s. ____ Too bumpy

t. ____ Transferring is a hassle

u. ____ Other _____

10. I om going to read you o list of things that might influence how often you ride this bus. For each, please tell me how it would effect you. If buses were air conditioned would you ride more?

	Yes	No	Don't Know
o. Air conditioned buses?	Y	N	DK
b. Ride buses that are kept in better condition?	Y	N	DK
c. If there were new routes that go places you often go?	Y	N	DK
d. If bus service ran more often?	Y	N	DK
e. If gasoline prices go up?	Y	N	DK
f. Buses ran on schedule better?	Y	N	DK
g. If driver were more courteous?	Y	N	DK
h. If drivers announced major stops and transfer points?	Y	N	DK
i. If signs on bus told you more clearly where it's going?	Y	N	DK

11. Where would you go to get a printed bus schedule if you need one? (check all mentioned—PROBE anything else).

a. ____ Bus driver

b. ____ MTC schedule outlet (libraries, government offices, businesses)

c. ____ Telephone MTC Transit Information Center

d. ____ MTC information booths (IDS, Town Square)

e. ____ Friend

f. ____ MTC garage or terminal

g. ____ Don't know

h. ____ Other

12. Are bus schedules written in a way that is easy for you to understand?

a. ____ Yes

b. ____ No

c. ____ Have never seen one/haven't seen one in years

13. Have you heard of o phone number you can call to find out information about bus routes?

a. ____ Yes

b. ____ No

14. Do you know that there are different bus fares ot different times of the day?

a. ____ Yes (GO TO Q #15)

b. ____ No (GO TO Q #16)

15. Do you know how much it would cost you to ride the bus at different times of the day?

o. ____ Yes

b. ____ No

16. Do you know that different groups of people pay different fares?

a. ____ Yes

b. ____ No

17. The MTC wants to interest more people in riding the bus. Would the following changes in bus fares cause you to ride the bus more than you do now?

	Yes	No	Don't Know
a. Lower bus fares?	Y	N	DK
b. Free bus fares?	Y	N	DK
c. A simpler fare system that has fewer rates?	Y	N	DK
d. A daily pass for unlimited riding on any route for $2.00/day?	Y	N	DK
e. A monthly pass for unlimited riding on any route for $30/month?	Y	N	DK
f. A plan where your monthly bus fare is automatically deducted from your paycheck?	Y	N	DK
g. Being able to pay for bus rides some other way than with cash?	Y	N	DK
h. Using credit cards to pay for commuter tickets or monthly passes?	Y	N	DK
i. Free bus tokens you get from stores when you buy things?	Y	N	DK

18. If bus fares increased, would you ride the bus as much as you do now?

a. ____ Yes

b. ____ No

c. ____ Depends on how much the increase is

19. What kind of job do you think the MTC does in providing bus service? A good job, a fair job or a poor job?

a.____ Good

b.____ Fair

c.____ Poor

d.____ Don't know/no opinion

20. Are you currently employed outside the home full-time, part-time, not employed, or retired?

a.____ Full-time

b.____ Part-time

c.____ Not employed

d.____ Retired

21. Have you lived in the Twin Cities area for less than 1 year, 1 to 3 years, 4 to 6 years, or more than 6 years?

a.____ Less than 1 year

b.____ 1-3 years

c.____ 4-6 years

d.____ More than 6 years

22. Have you lived at your current address for less than 1 year, 1 to 3 years, 4 to 6 years, or more than 6 years?

a.____ Less than 1 year

b.____ 1-3 years

c.____ 4-6 years

d.____ More than 6 years

23. What is your approximate age? _____

24. What category does your household's total yearly income fit into. Is it:

a.____ Less than $7500

b.____ $7500 to $10,000

c.____ $10,001 to $15,000

d.____ $15,001 to $20,000

e.____ $20,001 to $30,000

f.____ More than $30,000

g.____ Don't know

h.____ Refuse

THANK YOU!

Results of "Before" Survey*

TABLE 1

Employment Status by Route

Route	Employment Status				
	Employed Full-time %	Employed Part-time %	Not Employed %	Retired %	TOTAL % No.
Route 3	52	8	15	25	100 98
Route 5	50	13	14	23	100 99
Route 9	38	10	27	25	100 93
Route 15	52	9	10	29	100 99
Route 17	71	7	10	12	100 102
Route 22	41	9	24	26	100 100

TABLE 2

Length of Residence at Current Address of People
Who Live Along Selected Routes

Selected Route	Length of Residence				
	Less than 1 year %	1-3 years %	4-6 years %	More than 6 years %	TOTAL % No.
Route 3 (St. Paul)	4	18	20	58	100 103
Route 5 (Minneapolis)	3	25	12	60	100 101
Route 9 (St. Paul)	4	15	12	69	100 103
Route 15 (Minneapolis)	2	17	14	67	100 102
Route 17 (Minneapolis)	14	35	15	36	100 108
Route 22 (Minneapolis)	5	33	7	55	100 102

*These results were prepared by Anderson and Berdie Associates and were taken from their final report.

TABLE 3

Length of Residence In Twin Cities Area of People Who Live Along Selected Routes

Selected Route	Length of Residence				
	Less than 1 year %	1-3 years %	4-6 years %	More than 6 years %	TOTAL % No.
Route 3 (St. Paul)	1	7	6	86	100 103
Route 5 (Minneapolis)	1	8	4	87	100 101
Route 9 (St. Paul)	2	4	2	92	100 103
Route 15 (Minneapolis)	0	6	4	90	100 102
Route 17 (Minneapolis)	4	14	10	72	100 108
Route 22 (Minneapolis)	0	6	14	80	100 102

TABLE 4

Age by Route

Route	Age					
	18 to 29 %	30 to 45 %	46 to 64 %	65 or more %	TOTAL % No.	Average (mean)
Route 3	25	33	15	27	100 102	46
Route 5	23	30	23	24	100 100	48
Route 9	18	30	23	29	100 102	50
Route 15	13	28	34	25	100 101	52
Route 17	33	36	15	16	100 108	41
Route 22	22	37	13	28	100 102	47

TABLE 5

Responses Concerning Total Household Yearly Income

Route	Responses								TOTAL	
	Less than $7500 %	$7500-$10,000 %	$10,001-$15,000 %	$15,001-$20,000 %	$20,001-$30,000 %	More than $30,000 %	Don't Know %	Refused %	%	No.
Route 3	14	18	4	8	16	25	8	7	100	103
Route 5	14	17	12	12	21	18	1	5	100	101
Route 9	21	3	12	11	17	12	7	17	100	103
Route 15	11	9	9	18	17	17	5	14	100	102
Route 17	13	5	15	14	17	20	2	14	100	108
Route 22	17	10	18	11	15	11	4	14	100	102

TABLE 6

Level of Knowledge About Nearby Bus Route of People Along Selected Bus Routes

Selected Bus Route	Level of Knowledge		
	People Who Know Bus Routes Within 3 Blocks of Their Home %	People Who Know Route Number of Bus %	People Who Know Where Bus Goes %
Route 3 (St. Paul)	97	55	81
Route 5 (Minneapolis)	95	51	73
Route 9 (St. Paul)	87	51	72
Route 15 (Minneapolis)	72	22	46
Route 17 (Minneapolis)	94	60	75
Route 22 (Minneapolis)	88	41	60

TABLE 7

Level of Knowledge About Schedules and Fares of People Along Selected Bus Routes

Selected Bus Route	Level of Knowledge				
	People Who Can Understand Bus Schedules %	People Who Have Heard Of Phone Number to Get Information About Bus Routes %	People Who Know That Fares Differ During The Day %	People Who Know What Their Bus Fare Would Be %	People Who Know That Different Fare Apply to Different Kinds of People %
Route 3 (St. Paul)	89	71	88	71	94
Route 5 (Minneapolis)	82	66	87	72	89
Route 9 (St. Paul)	83	68	85	72	95
Route 15 (Minneapolis)	83	58	81	48	93
Route 17 (Minneapolis)	72	84	90	76	94
Route 22 (Minneapolis)	81	83	91	77	84

TABLE 8

Responses Concerning Where People Would Go to Get a Printed Bus Schedule

Response	Route*					
	Route 3 %	Route 5 %	Route 9 %	Route 15 %	Route 17 %	Route 22 %
Bus driver	49	60	49	51	51	73
MTC schedule outlet (libraries, government offices, businesses)	10	16	22	26	22	19
Telephone MTC Transit Information Center	17	10	8	28	21	9
MTC information booths (IDS, Town Square)	21	33	27	18	40	26
Friend	2	2	1	0	1	1
MTC garage or terminal	1	11	5	4	1	4
Don't know	16	19	13	8	9	9
Other	16	2	14	3	7	6

* The column percentage for each route may total more than 100% because the question was open-ended and people could give more than one response.

TABLE 9

Responses by Route Concerning People's Opinions of the Job MTC Does in Providing Bus Service

Route	Response					
	Good %	Fair %	Poor %	Don't Know/ No Opinion %	TOTAL %	No.
Route 3	53	38	2	7	100	98
Route 5	76	12	5	7	100	99
Route 9	64	27	2	7	100	93
Route 15	57	26	1	16	100	99
Route 17	60	32	2	6	100	101
Route 22	64	23	5	8	100	100

TABLE 10

Responses Concerning How Often Respondents or Members of Their Households Ride the Bus

Route	Response						
	3 or More Days Per Week %	Once or Twice a Week %	Once or Twice a Month %	Once or Twice a Year %	Not At All %	TOTAL %	No.
Route 3	21	10	9	19	41	100	103
Route 5	22	7	17	20	34	100	101
Route 9	7	6	16	15	56	100	103
Route 15	7	4	2	12	75	100	102
Route 17	11	13	18	18	40	100	108
Route 22	12	12	10	14	52	100	102

TABLE 11

Responses of People Who Ride the Bus Concerning Whether They Ride More or Less Than In the Past

Route	Response			
	More Often %	Less Often %	About the Same %	TOTAL % No.
Route 3	28	29	43	100 61
Route 5	32	45	23	100 66
Route 9	18	38	44	100 45
Route 15	28	28	44	100 25
Route 17	14	40	46	100 65
Route 22	16	39	45	100 49

TABLE 12

Responses of People Who Do Not Ride the Bus Concerning Whether They Rode In the Past

Route	Response			
	Yes %	No %	Have Ridden Once or Twice %	TOTAL % No.
Route 3	32	60	8	100 37
Route 5	24	73	3	100 33
Route 9	31	67	2	100 51
Route 15	12	87	1	100 71
Route 17	15	82	3	100 39
Route 22	14	86	0	100 51

TABLE 13

Responses by Route Concerning Whether There Is Anything MTC Could Do to Cause Non-Riding Respondents to Ride The Bus

Route	Response				
	Yes %	Maybe %	Don't Know %	No %	TOTAL % No.
Route 3	11	0	5	84	100 19
Route 5	0	16	0	84	100 19
Route 9	5	10	9	76	100 21
Route 15	12	9	0	79	100 33
Route 17	8	15	0	77	100 26
Route 22	6	0	0	94	100 32

TABLE 14

Responses of People Who Live Along Route 3 Concerning Whether Selected Changes Would Influence Them to Ride the Bus More Often

Selected Change	Response			
	Yes %	No %	Don't Know %	TOTAL % No.
Air conditioned buses	22	77	1	100 103
Ride buses that are kept in better condition	32	65	3	100 103
If there were new routes that go places you often go	50	50	0	100 103
If bus service ran more often	36	61	3	100 103
If gasoline prices go up	42	52	6	100 103
Buses ran on schedule better	33	62	5	100 103
If driver were more courteous	16	79	5	100 103
If drivers announced major stops and transfer points	30	69	1	100 103
If signs on bus told you more clearly where it's going	39	59	2	100 103

TABLE 15

Responses of People Who Live Along Route 5 Concerning Whether Selected Changes Would Influence Them to Ride the Bus More Often

Selected Change	Response: Yes %	No %	Don't Know %	TOTAL %	No.
Air conditioned buses	25	74	1	100	101
Ride buses that are kept in better condition	28	70	2	100	101
If there were new routes that go places you often go	42	50	8	100	101
If bus service ran more often	33	65	2	100	101
If gasoline prices go up	33	65	2	100	101
Buses ran on schedule better	24	74	2	100	101
If driver were more courteous	16	83	1	100	101
If drivers announced major stops and transfer points	34	63	3	100	101
If signs on bus told you more clearly where it's going	43	56	1	100	101

TABLE 16

Responses of People Who Live Along Route 9 Concerning Whether Selected Changes Would Influence Them to Ride the Bus More Often

Selected Change	Response: Yes %	No %	Don't Know %	TOTAL %	No.
Air conditioned buses	30	66	4	100	103
Ride buses that are kept in better condition	27	68	5	100	103
If there were new routes that go places you often go	40	57	3	100	103
If bus service ran more often	32	64	4	100	103
If gasoline prices go up	37	59	4	100	103
Buses ran on schedule better	31	62	7	100	103
If driver were more courteous	15	79	6	100	103
If drivers announced major stops and transfer points	30	65	5	100	103
If signs on bus told you more clearly where it's going	45	53	2	100	103

TABLE 17

Responses of People Who Live Along Route 15 Concerning Whether Selected Changes Would Influence Them to Ride the Bus More Often

Selected Change	Response: Yes %	No %	Don't Know %	TOTAL %	No.
Air conditioned buses	27	68	5	100	102
Ride buses that are kept in better condition	21	72	7	100	102
If there were new routes that go places you often go	46	49	5	100	102
If bus service ran more often	35	61	4	100	102
If gasoline prices go up	40	55	5	100	102
Buses ran on schedule better	36	61	3	100	102
If driver were more courteous	27	71	2	100	102
If drivers announced major stops and transfer points	35	62	3	100	102
If signs on bus told you more clearly where it's going	44	54	2	100	102

TABLE 18

Responses of People Who Live Along Route 17 Concerning Whether Selected Changes Would Influence Them to Ride the Bus More Often

Selected Change	Response: Yes %	No %	Don't Know %	TOTAL %	No.
Air conditioned buses	25	71	4	100	108
Ride buses that are kept in better condition	19	78	3	100	108
If there were new routes that go places you often go	40	57	3	100	108
If bus service ran more often	34	63	3	100	108
If gasoline prices go up	36	58	6	100	108
Buses ran on schedule better	34	62	4	100	108
If driver were more courteous	17	80	3	100	108
If drivers announced major stops and transfer points	29	68	3	100	108
If signs on bus told you more clearly where it's going	38	60	2	100	108

TABLE 19

Responses of People Who Live Along Route 22 Concerning Whether Selected Changes Would Influence Them to Ride the Bus More Often

Selected Change	Response: Yes %	No %	Don't Know %	TOTAL %	No.
Air conditioned buses	26	72	2	100	102
Ride buses that are kept in better condition	16	82	2	100	102
If there were new routes that go places you often go	36	62	2	100	102
If bus service ran more often	24	73	3	100	102
If gasoline prices go up	24	73	3	100	102
Buses ran on schedule better	28	71	1	100	102
If driver were more courteous	15	84	1	100	102
If drivers announced major stops and transfer points	21	76	3	100	102
If signs on bus told you more clearly where it's going	25	74	1	100	102

TABLE 20

Responses of People Who Live Along Route 3 Concerning Whether Selected Fare Changes Would Influence Them to Ride the Bus More Often

Selected Fare Changes	Response: Yes %	No %	Don't Know %	TOTAL %	No.
Lower bus fares	37	60	3	100	103
Free bus fares	42	54	4	100	103
A simpler fare system that has fewer rates	33	64	3	100	103
A daily pass for unlimited riding on any route for $2.00/day	23	74	3	100	103
A monthly pass for unlimited riding on any route for $30/month	28	69	3	100	103
A plan where your monthly bus fare is automatically deducted from your paycheck	10	87	3	100	103
Being able to pay for bus rides some other way than with cash	32	64	4	100	103
Using credit cards to pay for commuter tickets or monthly passes	19	77	4	100	103
Free bus tokens you get from stores when you buy things	42	53	5	100	103

TABLE 21

Responses of People Who Live Along Route 5 Concerning Whether Selected Fare Changes Would Influence Them to Ride the Bus More Often

Selected Fare Changes	Response: Yes %	No %	Don't Know %	TOTAL %	No.
Lower bus fares	44	54	2	100	101
Free bus fares	41	56	3	100	101
A simpler fare system that has fewer rates	30	66	4	100	101
A daily pass for unlimited riding on any route for $2.00/day	22	77	1	100	101
A monthly pass for unlimited riding on any route for $30/month	23	74	3	100	101
A plan where your monthly bus fare is automatically deducted from your paycheck	10	87	3	100	101
Being able to pay for bus rides some other way than with cash	30	65	5	100	101
Using credit cards to pay for commuter tickets or monthly passes	12	84	4	100	101
Free bus tokens you get from stores when you buy things	43	51	6	100	101

TABLE 22

Responses of People Who Live Along Route 9 Concerning Whether Selected Fare Changes Would Influence Them to Ride the Bus More Often

Selected Fare Changes	Response: Yes %	No %	Don't Know %	TOTAL %	No.
Lower bus fares	41	51	8	100	103
Free bus fares	28	65	7	100	103
A simpler fare system that has fewer rates	29	57	14	100	103
A daily pass for unlimited riding on any route for $2.00/day	20	71	9	100	103
A monthly pass for unlimited riding on any route for $30/month	20	73	7	100	103
A plan where your monthly bus fare is automatically deducted from your paycheck	11	82	7	100	103
Being able to pay for bus rides some other way than with cash	29	64	7	100	103
Using credit cards to pay for commuter tickets or monthly passes	16	76	8	100	103
Free bus tokens you get from stores when you buy things	43	49	8	100	103

TABLE 23

Responses of People Who Live Along Route 15 Concerning Whether Selected Fare Changes Would Influence Them to Ride the Bus More Often

Selected Fare Changes	Response			
	Yes %	No %	Don't Know %	TOTAL % No.
Lower bus fares	42	57	1	100 102
Free bus fares	37	62	1	100 102
A simpler fare system that has fewer rates	37	59	4	100 102
A daily pass for unlimited riding on any route for $2.00/day	19	80	1	100 102
A monthly pass for unlimited riding on any route for $30/month	25	74	1	100 102
A plan where your monthly bus fare is automatically deducted from your paycheck	10	89	1	100 102
Being able to pay for bus rides some other way than with cash	29	67	4	100 102
Using credit cards to pay for commuter tickets or monthly passes	21	78	1	100 102
Free bus tokens you get from stores when you buy things	44	54	2	100 102

TABLE 24

Responses of People Who Live Along Route 17 Concerning Whether Selected Fare Changes Would Influence Them to Ride the Bus More Often

Selected Fare Changes	Response			
	Yes %	No %	Don't Know %	TOTAL % No.
Lower bus fares	41	55	4	100 108
Free bus fares	44	53	3	100 108
A simpler fare system that has fewer rates	29	69	2	100 108
A daily pass for unlimited riding on any route for $2.00/day	20	78	2	100 108
A monthly pass for unlimited riding on any route for $30/month	29	68	3	100 108
A plan where your monthly bus fare is automatically deducted from your paycheck	13	83	4	100 108
Being able to pay for bus rides some other way than with cash	36	60	4	100 108
Using credit cards to pay for commuter tickets or monthly passes	21	73	6	100 108
Free bus tokens you get from stores when you buy things	44	52	4	100 108

TABLE 25

Responses of People Who Live Along Route 22 Concerning Whether Selected Fare Changes Would Influence Them to Ride the Bus More Often

Selected Fare Changes	Response			
	Yes %	No %	Don't Know %	TOTAL % No.
Lower bus fares	41	56	3	100 102
Free bus fares	44	54	2	100 102
A simpler fare system that has fewer rates	32	66	2	100 102
A daily pass for unlimited riding on any route for $2.00/day	16	83	1	100 102
A monthly pass for unlimited riding on any route for $30/month	18	80	2	100 102
A plan where your monthly bus fare is automatically deducted from your paycheck	7	92	1	100 102
Being able to pay for bus rides some other way than with cash	28	70	2	100 102
Using credit cards to pay for commuter tickets or monthly passes	17	81	2	100 102
Free bus tokens you get from stores when you buy things	41	58	1	100 102

TABLE 26

Responses of People Who Ride the Bus Concerning Whether They Would Ride As Much if Fares Increased

Route	Response			
	Yes %	Maybe %	No %	TOTAL % No.
Route 3	45	6	49	100 82
Route 5	56	10	34	100 83
Route 9	42	5	53	100 76
Route 15	45	7	48	100 73
Route 17	44	12	43	100 81
Route 22	36	20	44	100 70

APPENDIX B. "AFTER" SURVEY AND RESULTS

Sequence # ____ ____ ____ ____

Route # ____ ____ ____ ____

Zip Code ____ ____ ____ ____ ____

MTC VARIABLE FARE SURVEY (FOLLOW-UP)

(Interviewer Code This)

1. Sex of respondent

____ Male

____ Female

2. There is a bus route near you that goes along Portland, turns onto 24th Street, then goes along Cedar Avenue until 42nd, turns and then continues on 34th Avenue South. Did you know that this bus runs within three blocks of your home?

a.____ Yes (GO TO #3)

b.____ No (GO TO #8)

3. What is the route number of this bus?

a.____ Correct number (Route #22)

b.____ Incorrect number

c.____ Don't know

4. Do you know enough about where this bus goes to ride it?

a.____ Yes

b.____ No

5. How often do you or members of your household ride the route ____ bus? (If respondent answers "once in a while" read options)

a.____ 3 or more days/week
b.____ Once or twice a week
c.____ Once or twice a month
d.____ Once or twice a year

(GO TO #6)

e.____ Not at all (GO TO #7)

f.____ Live alone/never go out (GO TO #8)

6. Is this more or less often than you used to ride the route ____ bus?

a.____ More often
b.____ Less often
c.____ About the same

(GO TO #8)

7. Did you used to ride the route ____ bus?

a.____ Yes

b.____ No

c.____ Have ridden once or twice

8. Within the last few months did you receive a publicotion in the mail called the Rider's Digest?

a.____ Yes (GO TO #10)

b.____ No (GO TO #9)

c.____ Don't know (GO TO #9)

9. The Rider's Digest was a newsletter and contained a big map of the bus route in your neighborhood and a free pass for one free ride. Do you or members of your household remember receiving it now?

a.____ Yes (GO TO #10)

b.____ No (GO TO #36)

c.____ Don't remember (GO TO #36)

10. How many issues of it did you receive?

____ Number

____ Don't remember

11. Did you share the Rider's Digest with anyone else, or not?

a.____ Yes

b.____ No

12. Did you read it thoroughly, glance through it, or not read it at all?

a.____ Thoroughly (GO TO #13)

b.____ Glanced through it (GO TO #13)

c.____ Not at all (GO TO #36)

13. Did you look at the bus route map and schedule in the Rider's Digest?

a.____ Yes (GO TO #14)

b.____ No (GO TO #19)

c.____ Don't know (GO TO #19)

14. Was it helpful in providing information about how to ride the bus?

a.____ Yes

b.____ No

15. Have you saved the bus route map and schedule for future reference?

a.____ Yes

b.____ No

c.____ Don't know

16. Did you learn about new places the bus goes that you didn't know about before?

a.____ Yes (GO TO #17)

b.____ No (GO TO #19)

17. Have you taken the bus to any of these new places?

a.____ Yes (GO TO #18)

b.____ No (GO TO #19)

DO NOT ASK FOR ROUTE 15

18. Were these new places in the downtown area?

a.____ Yes

b.____ Some were

c.____ No

19. Enclosed in the first issue of the Rider's Digest was a card called "The When You Need It Card" that was good for one free ride on the bus. Do you remember this card?

a.____ Yes (GO TO #20)

b.____ No (GO TO #23)

20. Did you or anyone in your household use this card?

a.____ Yes (GO TO #21)

b.____ No (GO TO #22)

21. Did you or anyone in your household use this card to ride the bus when you wouldn't have ridden it otherwise?

a.____ Yes (GO TO #23)

b.____ No (GO TO #23)

22. Do you recall what happened to the card?

a.____ Threw it away

b.____ Still have the card

c.____ Gave it to someone else

d.____ Don't remember

e.____ Other (specify _____)

23. The Rider's Digest also contained information about "The Passport" card—a card you could buy that was good for six rides for the price of five rides. Do you remember reading about this card?

a.____ Yes (GO TO #24)

b.____ No (GO TO #36)

24. Did you or anyone in your household buy a Passport card?

a.____ Yes (GO TO #25)

b.____ No (GO TO #35)

25. Was it easy enough for you to find a place to buy a Passport card?

a.____ Yes

b.____ No

(NOT FOR ROUTE 5)

26. When you bought a Passport card at a store, did you buy something else at that store at the same time?

a.____ Yes

b.____ No

c.____ Don't remember

d.____ Did not get card at a store (someone gave it to respondent, etc.)

(FOR ROUTE 5 ONLY)

27. Did you mail in for a Passport card?

a.____ Yes (GO TO #29)

b.____ No (GO TO #28)

28. Did you know that they were available through the mail?

a.____ Yes

b.____ No

29. Did you know that the cards were not for sale downtown?

a.____ Yes (GO TO #30)

b.____ No (GO TO #31)

30. Did this create a problem for you?

a.____ Yes

b.____ No

31. Did this card cause you to ride the bus more than you would have otherwise?

a.____ Yes

b.____ No

32. Did you use the card for bus fare only on route ___, or only on other routes, or did you use it on route ___ and on other routes?

a.____ Only route ___

b.____ Other routes only

c.____ Routes ___ and other routes

33. Did you first learn about the Passport card from the Rider's Digest OR in some other way?

a.____ Rider's Digest

b.____ Other way→ How?_____

34. What did you like best about the Passport card? (check all mentioned)

o.____ Free ride

b.____ No need for exact change

c.____ Low cost

d.____ Other (specify _____)

(GO TO #36)

35. Why didn't you buy one of these cards? (check all mentioned)

a.____ Don't ride the bus

b.____ Don't ride enough to make it worthwhile

c.____ Couldn't find where they were sold

d. ___ Too expensive (must pay for 5 rides all at once)

e.____ Not enough discount

f.____ Other (specify _____)

36. Are you currently employed OUTSIDE THE HOME full-time, part-time, not employed, or retired?

o.____ Full-time

b.____ Part-time

c.____ Not employed

d.____ Retired

37. What is your approximate age? _____

38. What category does your household's total yearly income fit into. Is it: (read options)

a.____ Less than $7,500

b.____ $7,500 to $10,000

c.____ $10,001 to $15,000

d.____ $15,001 to $20,000

e.____ $20,001 to $30,000

f.____ More than $30,000

g.____ Don't know

h.____ Refused

THANK YOU!

Results of "After" Survey*
(and Comparison of Before-After Responses)

TABLE 27

Employment Status by Route

Route	Employment Status					
	Employed Full-time %	Employed Part-time %	Not Employed %	Retired %	TOTAL %	No.
Route 3	47	12	18	23	100	100
Route 5	41	13	17	29	100	100
Route 9	39	8	17	36	100	100
Route 15	39	16	24	21	100	100
Route 17	40	13	22	25	100	99
Route 22	38	17	17	28	100	99

TABLE 28

Age by Route

Route	Age						
	18 to 29 %	30 to 45 %	46 to 64 %	65 or more %	TOTAL %	No.	Average (mean)
Route 3	17	46	11	26	100	99	46
Route 5	22	28	21	29	100	98	48
Route 9	15	24	23	38	100	97	52
Route 15	20	34	27	19	100	96	45
Route 17	24	32	26	18	100	97	46
Route 22	25	36	17	22	100	97	45

*These results were prepared by Anderson and Berdie Associates and were taken from their final report.

TABLE 29

Responses Concerning Total Household Yearly Income

Route	Responses									
	Less than $7500 %	$7500-$10,000 %	$10,001-$15,000 %	$15,001-$20,000 %	$20,001-$30,000 %	More than $30,000 %	Don't Know %	Refused %	TOTAL %	No.
Route 3	10	5	12	7	18	26	7	15	100	100
Route 5	18	9	10	15	18	14	8	8	100	100
Route 9	14	2	11	10	12	26	8	17	100	100
Route 15	6	4	11	8	25	25	6	15	100	100
Route 17	9	5	6	10	22	21	5	22	100	100
Route 22	12	10	2	15	21	17	9	14	100	100

TABLE 30

Level of Knowledge About Nearby Bus Route of People Along Selected Bus Routes

Selected Bus Route	Level of Knowledge		
	People Who Know Bus Routes Within 3 Blocks of Their Home %	People Who Know Route Number of Bus %	People Who Know Where Bus Goes %
Route 3 (St. Paul)	95	50	80
Route 5 (Minneapolis)	74	51	62
Route 9 (St. Paul)	72	46	58
Route 15 (Minneapolis)	77	30	53
Route 17 (Minneapolis)	85	64	73
Route 22 (Minneapolis)	85	46	61

TABLE 31

Responses Concerning How Often Respondents or Members of Their Households Ride the Bus

Route	Response					TOTAL	
	3 or More Days Per Week %	Once or Twice o Week %	Once or Twice o Month %	Once or Twice o Year %	Not At All %	%	No.
Route 3	17	13	20	19	31	100	100
Route 5	19	15	17	12	37	100	100
Route 9	12	13	15	14	46	100	100
Route 15	3	5	14	15	63	100	100
Route 17	16	14	15	15	40	100	100
Route 22	17	11	14	16	42	100	100

TABLE 32

Responses of People Who Do Not Ride the Bus Concerning Whether They Rode in the Past

Route	Response			TOTAL	
	Yes %	No %	Have Ridden Once or Twice %	%	No.
Route 3	32	65	3	100	31
Route 5	14	81	5	100	37
Route 9	9	89	2	100	44
Route 15	10	90	0	100	62
Route 17	27	73	0	100	40
Route 22	20	77	3	100	39

TABLE 33

Responses of People Who Ride the Bus Concerning Whether They Ride More or Less Than in the Past

Route	Response				
	More Often %	Less Often %	About the Same %	TOTAL %	No.
Route 3	17	38	45	100	69
Route 5	25	43	32	100	63
Route 9	28	39	33	100	54
Route 15	38	30	32	100	37
Route 17	10	48	42	100	60
Route 22	17	29	54	100	58

TABLE 34

Responses of Residents Concerning Whether They Remember Receiving the Rider's Digest

Selected Route	Response				
	Yes %	No %	Don't Know %	TOTAL %	
Route 3 (St. Paul)	63	24	13	100	100
Route 5 (Minneapolis)	59	37	4	100	100
Route 9 (St. Paul)	62	33	5	100	100
Route 15 (Minneapolis)	59	37	4	100	100
Route 17 (Minneapolis)	33	61	6	100	100
Route 22 (Minneapolis)*	2	83	15	100	100

* Control route--did not receive Rider's Digest.

TABLE 35

Percentage of Residents* Who Reacted in Various Ways to the Route Map and Schedule in the Rider's Digest

Selected Route	Reaction				
	Looked at Route Map and Schedule %	Found Route Map and Schedule Helpful %	Saved Route Map and Schedule %	Learned About New Bus Destinations %	Rode Bus to New Destinations
Route 3 (St. Paul)	39	29	21	24	1
Route 5 (Minneapolis)	37	32	29	13	1
Route 9 (St. Paul)	42	33	31	17	3
Route 15 (Minneapolis)	33	27	15	17	0
Route 17 (Minneapolis)	22	17	10	6	1
Route 22 (Minneapolis)**	0	0	0	0	0

* Percentages are based on entire sample (including people who did not remember receiving Rider's Digest).
** Control route--did not receive Rider's Digest.

TABLE 36

Percentage of Residents* Who Reacted in Various Ways to the "When You Need It Card" Contained in the Rider's Digest

Selected Route	Reactions		
	Remember Receiving It %	Used the Card %	Used Card When Wouldn't Have Ridden Otherwise %
Route 3 (St. Paul)	42	9	3
Route 5 (Minneapolis)	49	12	3
Route 9 (St. Paul)	48	17	3
Route 15 (Minneapolis)	36	12	1
Route 17 (Minneapolis)	27	8	2
Route 22 (Minneapolis)**	0	0	0

* Percentages are based on entire sample (including people who did not or do not remember receiving Rider's Digest).
** Control route--did not receive Rider's Digest.

TABLE 37

Percentage of Residents* Who Reacted in Various Ways to the Passport Card Described in the Rider's Digest

Selected Route	Reactions: Remember the Passport Card %	Bought a Passport Card %	Found it Easy to Find a Passport Card %	Caused Them to Ride More than they would Have %	Used Card Only on Designated Route %
Route 3 (St. Paul)	31	1	1	0	1
Route 5 (Minneapolis)	38	1	1	1	0
Route 9 (St. Paul)	39	2	2	0	0
Route 15 (Minneapolis)	29	2	2	1	0
Route 17 (Minneapolis)	25	3	3	0	0
Route 22 (Minneapolis)**	0	0	0	0	0

Cont.

TABLE 37 (cont.)

Percentage of Residents* Who Reacted in Various Ways to the Passport Card Described in the Rider's Digest

Selected Route	Reactions: Used Card Only on Non-designated Routes %	Used Card on Designated and Non-designated Routes %
Route 3 (St. Paul)	0	0
Route 5 (Minneapolis)	0	1
Route 9 (St. Paul)	0	2
Route 15 (Minneapolis)	1	1
Route 17 (Minneapolis)	0	3
Route 22 (Minneapolis)**	3	0

* Percentages are based on entire sample (including people who did not or do not remember receiving Rider's Digest).
** Control route--did not receive Rider's Digest.

TABLE 38

Comparison for Each Route Between the Percentage of People Who Knew Before the Program that a Bus Route Was Near Their Home and Those Who Knew After the Program

Selected Route	Time Period: Knew of Bus Before Program %	Time Period: Knew of Bus After Program %	Gain/Loss Over Program Time Period %
Route 3 (St. Paul)	97	95	-2
Route 5 (Minneapolis)	95	74	-21
Route 9 (St. Paul)	87	72	-15
Route 15 (Minneapolis)	72	77	+5
Route 17 (Minneapolis)	94	85	-9
Route 22 (Minneapolis)*	88	85	-3

*Control route.

TABLE 39

Comparison for Each Route Between the Percentage of People Who Knew the Route Number of their Neighborhood Bus Before the Program and Those Who Knew It After the Program

Selected Route	Time Period: Knew Route Number Before Program %	Time Period: Knew Route Number After Program %	Gain/Loss Over Program Time Period %
Route 3 (St. Paul)	55	50	-5
Route 5 (Minneapolis)	51	51	--
Route 9 (St. Paul)	51	46	-5
Route 15 (Minneapolis)	22	30	+8
Route 17 (Minneapolis)	60	64	+4
Route 22 (Minneapolis)*	41	46	+5

*Control route.

TABLE 40

Comparison for Each Route Between the Percentage of People Who Knew Enough About the Bus Destination to Ride It Before the Program and Those Who Knew Enough After the Program

Selected Route	Time Period		
	Knew Enough Before Program %	Knew Enough After Program %	Gain/Loss Over Program Time Period %
Route 3 (St. Paul)	81	80	-1
Route 5 (Minneapolis)	73	62	-11
Route 9 (St. Paul)	72	58	-14
Route 15 (Minneapolis)	46	53	+7
Route 17 (Minneapolis)	75	73	-2
Route 22 (Minneapolis)*	60	61	+1

*Control route.

TABLE 41

Comparisons for Each Route Between Survey Responses Indicating Riding Frequency on the Selected Routes Before and After the Program

Selected Route	Riding Frequency										TOTAL	
	3+ days/week		1-2 times/week		1-2 times/month		1-2 times/yr.		Not at all			
	Before %	After %	Before %	After %	Before %	After %	Before %	After %	Before %	After %	Before %	After %
Route 3 (St. Paul)	21	17	10	13	9	20	19	19	41	31	100	100
Route 5 (Minneapolis)	22	19	7	15	17	17	20	12	34	37	100	100
Route 9 (St. Paul)	7	12	6	13	16	15	15	14	56	46	100	100
Route 15 (Minneapolis)	7	3	4	5	2	14	12	15	75	63	100	100
Route 17 (Minneapolis)	11	16	13	14	18	15	18	15	40	40	100	100
Route 22 (Minneapolis)*	12	17	12	11	10	14	14	16	52	42	100	100

*Control route.

APPENDIX C. RETAILER SURVEY

Retailer Survey MTC Variable Fare Demonstration Project

1. How well did you understand the program before it began?

   ____ Completely ____ Mostly ____ Somewhat _____ A little _____ Not at all

2. Did the MTC's "Passport" promotion increase traffic in your store?

   _____ Yes _____ No

3. Of the patrons who purchased "Passport" cards at your store, what percentage of them do you feel were repeat purchasers? _____%.

4. How satisfied were you with your free ads in the "Rider Digest"?

   Very satisfied _____ Somewhat satisfied _____ Dissatisfied _____

   Comments (if any): _____

5. Were the bookkeeping requirements for the project a problem for you?

   Yes _____ No _____

   Comments (if any): _____

6. Do you feel the effort you expended for the project was worth your free ad and the $15 per month commission? _____ Yes _____ No

7. What specifically did you like about the project? _____

   _____

8. What specifically did you dislike about the project? _____

   _____

9. Would you be interested in participating in a similar program again?

   _____ Yes _____ No _____ Maybe

10. Would you be interested in selling monthly passes and commuter tickets for the MTC on a regular basis? _____ Yes _____ No _____ Maybe

11. Would you be interested in displaying route and schedule information about your local route for the convenience of your customers?

    _____ Yes _____ No _____ Maybe

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APPENDIX D. AVERAGE RIDERSHIP TRENDS

AVERAGE WEEKDAY RIDERSHIP TRENDS
(TREATMENT ROUTES)

Month	Route				
	5M	15M	17M	3S	9S
Nov. 1981	26,257	1,345	10,658	9,102	6,691
Feb. 1982	25,381	1,402	12,451	8,709	6,579
May	24,919	1,260	11,849	8,146	6,207
June	20,328	1,156	9,036	6,643	5,536
July	20,479	1,146	8,897	6,508	4,882
Aug.	20,820	1,176	8,539	6,296	5,102
Sept.	20,165	1,276	9,210	6,864	5,029
Oct.	21,334	1,105	9,341	7,099	5,930
Nov.	21,792	1,205	8,904	7,315	5,704
Dec.	22,394	1,161	9,369	7,538	5,555
Jan. 1983	20,154	1,135	9,528	7,481	5,213
Feb.	18,218	951	8,516	6,303	4,626
March	22,511	1,164	9,601	7,716	5,804
April	22,866	1,293	11,287	7,242	5,660
May	21,115	1,146	9,051	7,399	5,907
June	20,114	1,427	9,241	6,737	5,854
July	18,597	1,068	9,133	6,581	5,131
Aug.	18,602	1,397	8,726	6,469	5,284
Sept.	19,849	1,205	9,206	6,697	5,382
Oct.	21,266	1,141	10,062	6,699	5,930
Nov.	22,149	1,271	10,708	6,962	5,849
Dec.	21,962	1,217	11,034	7,256	6,473
Jan. 1984	22,160	1,201	11,070	7,754	6,052
Feb.	22,701	1,227	10,622	7,422	6,051
March	23,851	1,267	11,820	7,397	6,382
April	22,633	1,269	10,614	7,483	5,857
May	21,492	1,139	10,088	7,131	5,763
June	19,574	1,076	9,916	6,169	5,578
July	19,809	1,173	10,000	5,111	5,419
Aug.	19,974	1,188	10,385	5,272	5,480
Sept.	20,813	1,073	9,482	6,212	5,491

AVERAGE WEEKDAY RIDERSHIP TRENDS
(CONTROL ROUTES)

Month	Route						
	22M	18M	19M	14M	5S	11S	14S
Nov. 1981	5,089	20,318	7,716	9,873	5,401	3,054	11,177
Feb. 1982	5,568	21,211	8,265	9,554	4,531	2,805	10,144
May	5,392	21,585	7,155	9,300	4,862	2,736	10,114
June	4,226	17,932	5,864	7,797	4,150	2,302	7,999
July	4,045	15,951	5,427	7,167	3,600	2,346	7,074
Aug.	3,917	16,105	5,790	7,427	3,939	2,340	7,250
Sept.	4,344	17,478	6,061	7,662	4,135	2,198	8,321
Oct.	4,181	17,615	5,972	7,554	4,518	2,438	8,984
Nov.	4,234	17,825	5,781	7,493	4,111	2,571	8,586
Dec.	4,590	19,429	6,695	7,315	4,354	2,393	8,413
Jan. 1983	4,426	18,467	6,459	7,787	4,312	2,278	8,885
Feb.	3,784	15,468	5,607	7,025	3,412	1,979	6,969
March	4,585	18,930	6,207	9,094	4,273	2,451	8,578
April	4,444	16,604	6,236	7,547	4,435	2,426	8,844
May	4,053	16,182	6,072	7,729	4,106	2,133	9,221
June	4,021	15,360	5,826	7,512	4,145	2,396	7,538
July	3,788	14,265	5,124	7,079	4,257	2,204	8,195
Aug.	4,187	15,111	4,641	7,270	3,900	2,224	7,402
Sept.	4,024	15,252	5,132	7,306	4,442	2,431	8,550
Oct.	3,805	16,646	5,729	8,284	4,354	2,507	8,894
Nov.	4,036	17,461	5,597	8,701	4,307	2,539	9,375
Dec.	4,536	18,837	5,986	8,936	4,449	2,636	9,678
Jan. 1984	4,876	17,634	6,378	8,286	4,357	2,353	9,954
Feb.	4,650	18,259	6,542	8,521	4,261	2,455	9,495
March	4,815	18,535	6,663	8,903	4,386	2,449	9,197
April	4,686	17,351	6,096	8,019	3,970	2,374	9,417
May	4,357	17,192	5,654	7,716	4,318	2,302	8,980
June	4,392	16,722	5,524	7,219	4,038	2,006	8,105
July	3,754	15,468	5,011	7,519	3,793	2,202	7,926
Aug.	3,952	16,443	5,046	7,720	3,529	1,954	7,432
Sept.	4,373	16,790	5,027	7,668	4,045	2,060	8,557

AVERAGE SATURDAY RIDERSHIP TRENDS
(TREATMENT ROUTES)

Month	Route				
	5M	15M	17M	3S	9S
Nov. 1981	12,584	626	6,369	3,585	3,187
Feb. 1982	11,805	546	6,947	3,530	2,798
May	12,368	515	6,339	3,270	2,685
June	10,077	371	5,060	2,853	2,533
July	8,779	293	4,495	2,512	1,874
Sept.	13,399	396	4,903	2,693	2,189
Oct.	9,270	357	5,094	2,551	2,228
Dec.	10,588	540	6,046	3,228	2,748
Jan. 1983	9,635	433	5,905	2,898	2,305
March	10,658	418	5,542	3,024	2,616
April	11,792	794	6,523	2,820	2,727
May	9,824	403	4,805	2,541	2,356
June	9,604	373	5,311	2,488	2,228
July	9,246	331	4,372	2,520	1,964
Aug.	10,041	301	5,309	2,594	2,428
Sept.	10,935	427	4,792	2,777	2,165
Oct.	10,081	429	5,321	2,575	2,580
Nov.	9,976	440	5,692	2,692	2,565
Dec.	11,102	481	6,054	2,975	2,691
Jan. 1984	10,394	431	5,178	2,847	2,656
Feb.	10,655	477	6,533	2,915	2,690
March	12,318	449	5,950	3,523	2,973
April	11,655	453	5,435	3,082	2,607
May	10,907	434	4,612	2,732	2,641
June	9,260	382	5,456	3,102	2,436
July	9,589	310	5,079	2,003	2,227
Aug.	10,181	360	5,086	1,975	2,027
Sept.	10,523	557	5,253	2,166	2,467

AVERAGE SATURDAY RIDERSHIP TRENDS
(CONTROL ROUTES)

Month	Route						
	22M	18M	19M	14M	5S	11S	14S
Nov. 1981	2,352	10,273	3,556	3,842	1,898	1,077	4,934
Feb. 1982	2,489	10,723	3,311	3,552	1,515	884	4,396
May	2,173	10,753	3,572	3,932	2,122	1,147	5,060
June	1,950	8,642	3,053	3,163	2,223	1,060	3,627
July	1,605	7,233	2,309	2,663	953	836	3,177
Sept.	2,562	9,220	3,730	4,014	1,766	1,441	4,584
Oct.	1,883	8,743	2,547	3,397	1,144	660	3,780
Dec.	1,879	11,310	2,788	3,968	1,720	934	4,621
Jan. 1983	1,977	8,039	2,499	3,007	1,264	655	3,941
March	1,987	8,827	2,419	3,363	1,168	809	4,119
April	2,341	8,564	2,302	3,838	1,657	843	4,408
May	1,775	7,512	2,189	3,010	1,432	861	3,864
June	1,658	7,813	1,840	2,889	1,471	642	3,556
July	1,643	7,853	1,742	2,790	1,503	700	3,898
Aug.	1,835	8,615	1,741	2,715	1,447	778	3,645
Sept.	2,044	8,793	1,729	3,342	1,387	780	4,235
Oct.	2,064	8,928	1,899	3,131	1,613	697	4,353
Nov.	2,468	8,890	2,026	3,390	1,371	707	4,426
Dec.	2,359	10,304	2,007	3,523	1,476	875	4,415
Jan. 1984	2,401	9,539	2,163	3,545	1,447	873	4,711
Feb.	2,281	9,517	2,318	3,459	1,633	755	4,650
March	2,589	10,632	2,507	4,011	1,692	902	4,954
April	2,175	10,302	2,278	3,786	1,717	741	4,808
May	2,003	9,040	2,037	3,511	2,024	895	4,040
June	1,621	8,655	1,723	3,217	1,527	1,025	4,773
July	1,577	8,660	1,756	2,949	1,407	750	3,909
Aug.	1,817	8,994	1,959	3,329	1,397	740	4,058
Sept.	2,003	9,506	1,900	3,200	1,588	856	4,472

AVERAGE SUNDAY RIDERSHIP TRENDS
(TREATMENT ROUTES)

Month	Route				
	5M	15M	17M	3S	9S
Nov. 1981	6,379	251	2,402	1,535	1,251
Feb. 1982	7,421	208	2,556	1,380	1,261
May	6,976	128	2,532	1,341	1,072
June	5,335	146	1,974	1,181	992
July	6,698	181	2,574	1,150	764
Sept.	6,042	165	2,239	948	959
Oct.	5,549	220	2,204	1,129	1,124
Dec.	5,644	194	2,610	1,235	1,126
Jan. 1983	5,724	159	2,263	1,172	1,030
March	4,958	216	2,296	1,097	997
April	5,886	326	2,257	1,276	1,144
May	5,111	203	2,211	997	1,029
June	4,772	134	2,200	1,017	743
July	3,649	115	2,849	1,102	917
Aug.	5,374	150	2,720	1,138	1,073
Sept.	5,721	129	2,543	1,246	1,156
Oct.	5,682	204	2,664	1,149	1,043
Nov.	5,427	290	2,584	1,112	1,084
Dec.	6,070	218	2,461	1,141	829
Jan. 1984	5,413	166	1,994	1,026	925
Feb.	5,310	203	2,534	1,147	1,081
March	6,130	210	2,837	1,338	1,169
April	5,678	171	2,864	1,271	1,204
May	5,913	149	2,758	1,098	1,071
June	6,176	151	2,874	1,256	1,109
July	5,333	122	2,390	1,040	1,160
Aug.	5,698	200	2,549	952	1,356
Sept.	5,911	185	2,023	1,045	1,117

AVERAGE SUNDAY RIDERSHIP TRENDS
(CONTROL ROUTES)

Month	Route						
	22M	18M	19M	14M	5S	11S	14S
Nov. 1981	1,002	5,149	1,066	1,153	800	486	2,119
Feb. 1982	966	6,077	1,087	1,180	757	413	1,993
May	790	5,246	953	1,138	800	384	1,947
June	688	3,523	645	892	548	335	1,622
July	699	4,366	935	1,062	864	394	1,677
Sept.	758	4,396	736	979	626	380	1,549
Oct.	703	4,421	789	929	729	387	1,949
Dec.	691	4,568	760	1,080	893	465	2,424
Jan. 1983	846	4,397	425	1,067	582	279	1,471
March	702	4,647	792	809	650	319	1,736
April	928	5,149	875	1,147	671	279	2,418
May	732	4,449	826	1,037	815	354	1,663
June	500	4,257	832	964	650	327	2,186
July	586	4,384	796	946	769	336	2,111
Aug.	635	4,830	767	1,094	873	169	2,227
Sept.	720	4,930	817	971	609	241	1,971
Oct.	916	4,860	645	1,026	521	348	2,022
Nov.	705	4,683	699	769	633	344	1,934
Dec.	774	5,247	834	994	659	407	2,010
Jan. 1984	773	4,923	862	703	741	330	2,038
Feb.	787	4,031	1,262	847	515	344	1,867
March	900	4,609	1,066	949	729	406	2,202
April	732	4,658	781	1,139	688	357	2,079
May	707	4,967	878	982	613	367	2,177
June	625	4,083	908	1,080	929	351	1,889
July	728	4,537	787	740	842	307	1,986
Aug.	718	4,654	903	992	806	384	1,832
Sept.	919	4,720	833	1,226	947	390	1,734

APPENDIX E. REGRESSION ANALYSIS

A multiple linear time series regression model was developed to analyze the impact of the demonstration and other explanatory variables on route ridership. The model was run separately for weekday, Saturday, and Sunday/holiday ridership figures; all five treatment routes and seven control routes were included. Average daily ridership figures were included for most months between November 1981 and September 1984.*

A stepwise backward elimination procedure (on SAS) was used in the analysis. The variables included for each month were as follows:

- MONTHNUM = a dummy variable (e.g., 1,2,3, etc.) representing the ordinal number of the month being entered
- UNEMRATE = the regional unemployment rate (i.e., the percentage of total eligible workers not currently employed)
- REALGAS = the average regional retail price of gasoline, adjusted for inflation (using the consumer price index)
- SUMMER = a dummy variable ("1") for the months of June, July and August; entered to account for the fact that ridership is typically lower during these months than during the rest of the year
- WINTER = a dummy variable ("1") for the months of December, January, and February; entered to account for the fact that ridership is typically higher during these months than during the rest of the year
- FARE = a dummy variable ("1") indicating a fare increase (addition of $.15 peak period surcharge) in June 1982
- DEMO = a dummy variable ("1") for the months of February, March, and April 1984 -- i.e., the "treatment" period

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* Data for several months during this period were not available: 30 monthly observations were included for weekdays and 27 for Saturdays and Sundays/holidays.

- POST = a dummy variable ("1") for the months of May-September 1984 -- i.e., following the treatment period
- SERV59* = a dummy variable ("1") indicating a significant service reduction on Routes 5 and 9
- SERV17* = a dummy variable ("1") indicating a significant service reduction on Route 17
- SERV22* = a dummy variable ("1") indicating a significant service reduction on Route 22

The model tested was of the general form

$$Y = B_o + B_1X_1 + B_2X_2 + B_3X_3...$$

where Y is the dependent variable (in this case, the actual monthly ridership), B_o, B_1, etc. are the unknown parameters we sought to determine, and X_1, X_2, etc. are the independent variables described above. B_o is the intercept, which represents the ridership on each route if all of the independent variables were equal to O. B_1, B_2, etc. indicate the relative magnituds of the impact of each variable on monthly ridership.**

We are primarily interested in this case in determining the relative impact of the demonstration -- on both a short-term (DEMO) and long-term (POST) basis -- on ridership. The results, in terms of these impacts, are summarized in Tables E-1, E-2, and E-3. These tables indicate which routes showed DEMO and/or POST to be significant explanatory factors, along with the B values and descriptive statistics.

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* Except for a weekday change on Route 5, all of these service changes were weekend only, and thus, except for Route 5, were entered for the weekend runs only.

** For instance, the B values for DEMO and POST do not represent actual numbers of riders attributable directly to the demonstration strategies. The POST impact is frequently negative; this does not indicate that the demonstration caused ridership to decline on these routes, but rather that ridership dropped during the post-treatment period.

TABLE E-1. REGRESSION ANALYSIS RESULTS (WEEKDAY)

ROUTE	R^2	B_o	B(DEMO)*	PROB F	B(POST)*	PROB F
Treatment:						
5M**	.78	54,422	1948	.0067		
15M	.18					
17M	.78	42,364	808	.0367		
3S***	.79	8,652			-795	.0006
9S	.57	11,789			-404	.0911
Control:						
22M	.71	5,266	478	.0047		
18M	.64					
19M	.83	7,676	750	.0035		
14M	.70	15,956			-647	.0489
5S	.53					
11S	.69	3,223			-354	.0001
14S	.76					

* B included only where variable is significant in model.
** M = Minneapolis
*** S = St. Paul

TABLE E-2. REGRESSION ANALYSIS RESULTS (SATURDAY)

ROUTE	R^2	B_o	B(DEMO)	PROB F	B(POST)	PROB F
Treatment:						
5M**	.47					
15M	.53					
17M	.74	12,745	1566	.0005	768	.0616
3S***	.57	643	617	.0025		
9S	.52	2,890	261	.0766		
Control:						
22M	.65	9,427	260	.0629		
18M	.56					
19M	.82	3,729	724	.0014	751	.0009
14M	.56	3,779	484	.0312	382	.0796
5S	.28	9,535	407	.0447	348	.0730
11S	.25					
14S	.64	8,446	364	.0887		

TABLE E-3. REGRESSION ANALYSIS RESULTS (SUNDAY/HOLIDAY)

ROUTE	R^2	B_o	B(DEMO)	PROB F	B(POST)	PROB F
Treatment:						
5M	.59	6,877			696	.0137
15M	.33					
17M	.19					
3S	.55	1,419	138	.0264		
9S	.37	1,195	155	.0478	.166	.0111
Control:						
22M	.50					
18M	.69	5,329	-691	.0054	-487	.0587
19M	.42	1,035	248	.0035		
14M	.18					
5S	.16	700			126	.0336
11S	.25					
14S	.00					

APPENDIX F. RIDER'S DIGESTS (JANUARY AND MARCH)

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January, 1984

RIDER'S DIGEST

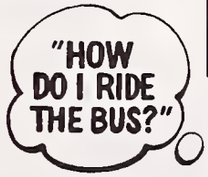
Introducing A Bus Program You Can't Pass Up.

Congratulations! Your neighborhood and its bus route have been selected as part of a test program. You'll be eligible for exclusive benefits—such as The When-You-Need-I(T) Card, which gives you a free bus ride, in case of emergency. (No strings attached.

You can also purchase The Passpor(T) and get six rides anywhere on the system for the price of five. See the inside of the Digest for your free When-You-Need-I(T) Card and for more information on the Passpor(T).

But that's not all. We've conducted research to find out how to make riding the bus easier and more enjoyable for you.

You said you needed better information on the bus routes and easier-to-understand maps. It's all here—in the RIDER'S DIGEST.



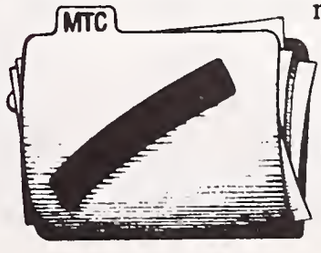
There's a large, easy-to-read map, with transfer points and places of interest marked. We've also included a section for new riders on how to ride the bus. The bus schedule and usual fares are provided, too. There's even a directory of things to see along your route.

You may have been confused about fares

and the need for exact-change. The Passpor(T) solves these problems; it's good any time for any trip on any route.

You told us you want courteous drivers and clean, attractive buses that appear on time. We're working to give you the best.

You've wanted easier-to-buy bus passes, at a savings. The Passpor(T) can be purchased easily (see page 4 for information on how to get it), and it gives you 6 rides for the price of 5.



Find out how successful we are in providing bus service in your neighborhood. Try the bus.

The Passport Gets You Everywhere, For Less.

The MTC has created a new bus pass that gets you anywhere you want to go in the Twin Cities—for less. You can take any bus on any route—even through zones—and it will only cost you one punch of your Ⓣ. The PassporⓉ gives you six rides for the price of five. At $3.75, it's a real bargain. And it's good until June 30, 1984.

Not only does the PassporⓉ save you money, it saves you bother, too. It's easy to purchase and easy to carry. There's no need to fumble for coins when you want to ride the bus. Just pull out your PassporⓉ, and the driver will punch it.

Remember, the last punch lets you take a free ride.

See page 4 for information on how and where to buy The PassporⓉ.

"The Best Thing That Ever Happened To Me On The Bus."

If you've ever ridden the bus you've probably had some very nice experiences. Another passenger may have brightened your mood with a kind word. A bus driver may have been especially helpful and friendly. Perhaps you've even dated someone you met on the bus.

Send us your story about the best thing that ever happened to you on the bus. We may print it in a future issue of Rider's Digest. If so, you'll win one year of free rides on the MTC (12 monthly passes)—for more nice going.

Send your stories by January 30, 1984 to:

Rider's Digest
c/o MTC
160 East Kellogg
801 American Center Bldg.
St. Paul, MN 55101

The MTC In Transit

After 12 years, you're about to see a change. A bus of a different color is beginning to hit the roads. It's white, with black around the windows, and a red and orange horizontal side stripe ending in a Ⓣ.

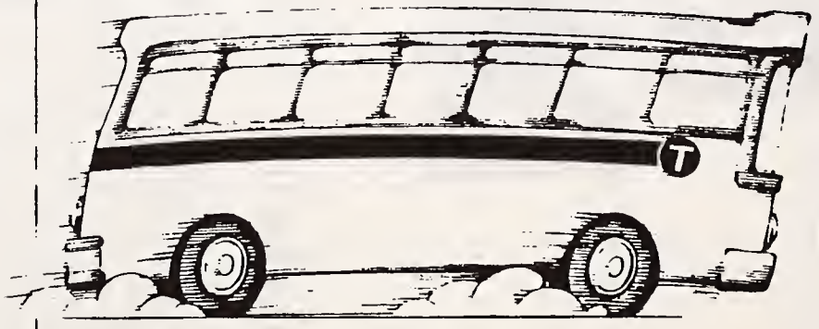
Why the change? Because the traditional red bus paint has had problems with discoloration and fading.

Also, the lower half of new MTC buses will have a protective, unpaintable teflon coating that's already white.

Forty buses in the new colors are already on order. But it will probably take five years to repaint the entire MTC fleet of over 1,000 buses. Not surprising, when you consider that it takes 2 to 3 days to repaint each bus.

Bus Riders Trivia

1. What is the greatest number of people to board the bus at any one stop in a one hour period?
2. How many buses are in the fleet?
3. Which provides more seats, the Metrodome or the MTC?
4. How far back does MTC history go?
5. What is the shortest route and what is the longest route?
6. Where did the bus tokens come from?



THE LAKE LINER 17

The Transit Tourist

by Robert Dubois

Take a tour along your local Route 17 and you'll find it's a lake-lover's dream. It passes by three lakes: Cedar, Calhoun and Lake of the Isles.

But the route also serves the shopper. It connects passengers with a Target store, Knollwood Mall, the Lake & Hennepin area, and downtown Minneapolis. But there's a lot more.

The following list describes only a smattering of the places you can go on your Route 17 bus. Discover more on your own. Ride the bus and tour the cities. (See the center map for locations of listed points of interest.)

Knollwood Mall This handy mall features everything from jewelers and a tailor to a bakery and a drugstore. You can get your hair cut or your shoes repaired; even see a movie at the Knollwood IV Theatres. It's all near Route 17.

Methodist Hospital You may want to take the bus to the hospital for non-emergency treatments or to visit a relative or friend.

St. Louis Park Public Library It's only a short walk to a building full of books. Get a library card and you can take books and magazines out for free—a cheap and everlasting source of entertainment.

Cedar Lake, Lake Calhoun and Lake of the Isles These three popular lakes are linked by lagoons. They're almost as beautiful in the winter as in the summer. Take a brisk walk around the ice and admire the lovely lakeside homes. Route 17 will take you there, winter or summer.

Lake and Hennepin (Uptown) Another great place to shop. The surrounding blocks are crammed with gift shops, restaurants, bakeries, banks, grocery stores, the Uptown Theatre and many stores just perfect for browsing.

Minneapolis Institute of Art This art museum contains everything from ancient Chinese jade to medieval castle tapestries to masterworks by Rodin and Picasso. There's even a suit of armor! You'll have a lot of fun in the Institute, and the bus takes you within a couple of blocks of it.

Children's Theatre Known nationwide for its charm and technical brilliance. The Children's Theatre puts on several family plays each year—such as "Pippi Longstocking." Call 874-0400 for information.

Downtown Minneapolis Your Route 17 bus can take you to the heart of the city for shopping, dancing, eating or working. Visit Orchestra Hall, The Nicollet Mall, IDS or City Center, just to name a few.

Besides these attractions, Route 17 gives you access to the stores listed (and advertised) below—where you can also purchase The Passport Ⓣ. Check them out.

Tour the Twin Cities by bus and find out what you've been missing. It all starts just beyond your doorstep.

DESTINATION SIGNS

TO	TAKE
31st Street & Irving Avenue South	17-A
Cedar Lake Ave. & Depot St. (Cedar Lake area)	17-B
Target-Knollwood (via Minnetonka Blvd.)	17-C
Texas Ave. & Hwy 7 (via Lake Street)	17-D
Tyler & 2nd St. NE (via Lake St.) Hopkins	17-E
Hwy. 7 North frontage road & Raleigh Ave. So.	17-F
Methodist Hospital (via Lake Street)	17-G
Target-Knollwood-Amhurst Apts. (EXPRESS-FREEWAY via Hwys. 100 & 12)	17H
Tyler & 2nd St. NE (EXPRESS-FREEWAY via Hwys 100 & 12)	17-J
Target-Knollwood-Amhurst Apts. (via Mtka Blvd.)	17K

HOW TO RIDE THE BUS.

Fares

The easiest way to take care of your bus fare is to purchase The Passport Ⓣ. It will give you 6 rides for the price of 5 anywhere on the system.

But if you don't use the Passport Ⓣ, and prefer to pay each time you ride, remember you must pay with exact change. Fares vary with the zone and the time of day. If you ride the bus between 6-9 am and 3:30-6:30 pm on weekdays, you'll pay 15¢ more than at other times.

If you travel from one zone to another, you will pay more than if you ride only within one zone.

The chart below shows you how much to pay during peak hours and off-peak hours in each zone. Take a look at the map to see where the zone boundaries are on your route, remember travelling to another zone costs more if you don't use the Passport Ⓣ.

Adult Fare	Off Peak	*Peak
Rides not crossing within Zone 1	[illegible]	[illegible]
Rides Zone 1 to Zone 2	[illegible]	[illegible]
Rides Zone 1 to Zone 3	[illegible]	$1.05
Rides Zone 1 to Zone 4	$1.00	$1.15
Rides taken completely outside the City Limits of Minneapolis or St. Paul	[illegible]	[illegible]

Special Fares

During peak hours everyone pays the usual adult fares. At all other times (including weekends and holidays) there are special rates for four groups of people.

- Senior Citizens 65 and older pay 10¢. Medicare card, MTC endorsed drivers license or state ID card required to qualify for the reduced fare.
- Persons 17 and younger pay 20¢, plus any applicable zone and express bus charges. Easy Rider ID Card required for persons 14-17 years.
- Disabled persons with MTC ID card ride for 30¢.
- Children under 6 free (limit 3) when accompanied by paid adult fare. No time restrictions apply for this reduced fare.

Bus Information

For specific directions on how to get from any one place to another by bus, call the MTC Transit Information Center at 827-7733. (The hearing impaired may call the Transit Information Teletypewriter at 824-5202.)

This Digest contains all the information you need to ride your local bus. But if you want more information on other routes, you can pick up pocket-sized schedules at many businesses, banks and stores, including Town Square in St. Paul and the IDS Crystal Court in Minneapolis. Each bus driver can also give you a schedule for the route as you board the bus.

A Twin Cities Transit Guide, with a large map of the entire transit system, is also available. To buy one, contact the MTC at 221-0939.

You can catch an MTC bus on any corner of wherever you see the red Ⓣ sign. Often the route numbers of the buses that pass by the stop will be listed inside the bus shelter. If there is a bus shelter with a red Ⓣ on it, the schedules will also be posted inside.

If you have any comments on your bus service, just call the MTC at 827-4025. We want to make sure your bus-riding experience is always pleasant.

Where To Pick Up Your Passport Ⓣ

1. Lunch Box Express 2400 Nicollet
2. Uneeda Record 2401 Lyndale Ave. South
3. 7-11 Store 2325 Lyndale Ave. South
- 3A. Dupont Country Box 2401 Dupont Ave. South
4. Petrocelli's Restaurant 2329 Hennepin
5. Amazon Bookstore 2607 Hennepin
6. Baskin-Robbins 2751 Hennepin
7. Uptown Card & Gift Shop 3004 Hennepin
8. Sherman Bakery 3028 Hennepin
9. Uptown Drug 3049 Hennepin
10. Waldo's Pizza Joint 3118 W. Lake
11. Chi's Milt Market 4000 Minnetonka Blvd.
12. Lincoln Del 4100 W. Lake Street

Lunch Box Express
2400 Nicollet Ave
ph. 871-8198

Uneeda Record
2401 Lyndale Ave. South
ph. 871-9280

7-Eleven
2325 Lyndale Ave. South
ph. 871-4605

Dupont Country Box
2401 Dupont Ave. South
ph. 374-3900

Petrocelli's Restaurant
2329 Hennepin Ave
ph. 374-5454

Amazon Bookstore
2607 Hennepin Ave
ph. 374-5507

Baskin-Robbins
2751 Hennepin Ave
ph. 871-6816

Uptown Card & Gift Shop
3004 Hennepin Ave
ph. 823-6508

Sherman Bakery
3028 Hennepin Ave
ph. 823-7269

Uptown Pharmacy
3049 Hennepin Ave
ph. 825-7718

Waldo's Pizza Joint
3118 W. Lake Street
ph. 927-6854

Chi's Milt Market
4000 Minnetonka Blvd
ph. 926-5611

The Lincoln Del
4100 W. Lake Street
ph. 927-9738

ALONG ROUTE 17
ALONG ROUTE 17
THE LAKE LINER
Downtown
Minneapolis
St. Louis Park
MONDAY THROUGH FRIDAY
SATURDAY
SUNDAY & HOLIDAY

TOUR THE TWIN CITIES.

Take a bus tour close to home. There's a lot to see even along your local route. (Isn't it funny how we always seem to miss what's right under our noses?)

Check out the museums and shops, the restaurants and shows. There's a lot to enjoy in and around the Twin Cities. And the MTC will take you there.

Check page 4 and the center map in this RIDER'S DIGEST for information on the sights to see and the things to do along your local bus route.

NICE GOING.

© 1983 Metropolitan Transit Commission

POSTMASTER: PLEASE DELIVER TO ADDRESSEE OR CURRENT OCCUPANT.

Bulk Rate
U.S. Postage
PAID
Permit No. 1717
Mpls., MN

© 1984 Metropolitan Transit Commission

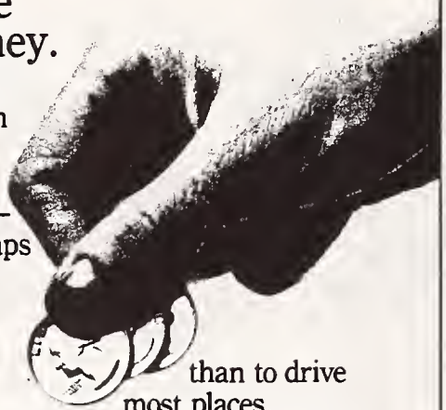
March, 1984

RIDER'S DIGEST

Five Good Reasons to Take the Bus.

1 Save money.

What better reason could there be to do something — except perhaps to make money? It costs less to take the bus



than to drive most places. (Remember, it costs you 26.7¢ per mile to drive the average car.) Plus you save wear and tear on your vehicle.

2 Relieve stress.

Avoid parking and traffic hassles, and bad weather, when the going gets tough, smart people get going — on the bus. Just step on the bus to go some place and step off when you get there. No worries.

3 Save time: do two things at once.

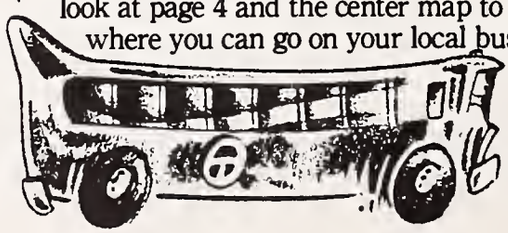
Who says you can't? You can read and ride on the bus. You must admit, it's a lot more fun to relax and read the paper than to drive.

4 Meet new friends.

Sharing a seat on the bus with one of your neighbors is a great way to meet them. You could discuss the state of affairs in Washington. Or even the latest weather.

5 Visit new places.

The bus takes you almost anywhere you'd like to go. You can visit museums and shops and friends and the zoo. Just take a look at page 4 and the center map to see where you can go on your local bus route.



How It's Going.

The Passport program is going great. It has been enthusiastically greeted on all five of the test routes.

The Passport is popular. People like the chance to ride six times for the price of five — $3.75. And they find it very convenient to buy and use. (See the center section).

People from other areas have even called the MTC to find out how to participate, but the program is only being offered to the five test routes. This five-month test will end June 30th, and April 30th is the last day to buy a Passport.

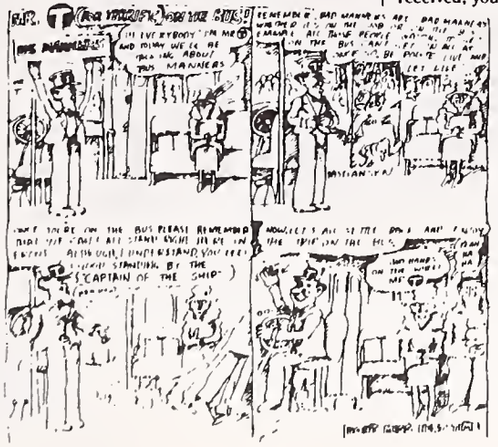
The Urban Mass Transportation Administration (UMTA) has also commended the MTC for the program and is enthusiastic about it. But the response we hope for most is your participation.

"The Best Thing That Ever Happened To Me On The Bus."

In our first issue of Rider's Digest, we offered you the chance to tell us about the best thing that ever happened to you on the bus. If yours was the best story received, you would win a year's free rides on the MTC. Well, we goofed. We had a deadline for the contest that was impossible to meet. So, to be fair, we have extended the deadline for submitting your story to March 30, 1984. Just send it to:

Rider's Digest
c/o MTC
801 American Center Building
St. Paul, MN 55101

If yours is the best story received, you will receive a year's worth of free rides on the MTC — 12 monthly passes — for more nice going.



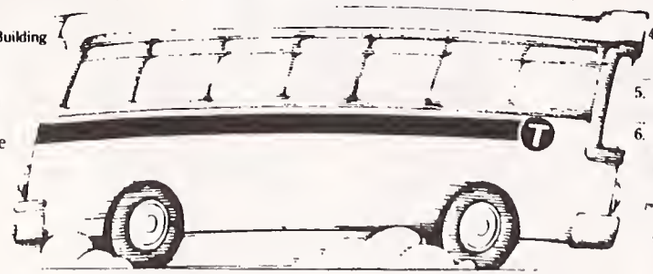
The MTC in Transit.

Cowboys aren't the only ones who test their skills in rodeos. The MTC has a few Roadeo heroes of its own — but the mounts they have are buses.

It all began in 1975 when the MTC sponsored the world's first Bus Roadeo. It was so successful that the next year the American Public Transit Association encouraged all of its members in the United States and Canada to participate, and the first International Roadeo was held.

The Bus Roadeo is like a bus driver's Olympics, Stanley Cup and Superbowl all rolled into one. Entrants must meet stringent qualifications just to participate. Finalists survive a tough combination of tests; far more difficult than street driving. You can recognize MTC Roadeo finalists by the shoulder patches they proudly wear on their jackets. But only one driver wins the local championship and goes on to compete in the International Roadeo. And one driver has won more than once.

Minneapolis driver Len Rindfleisch has competed in the Internationals four times. Because of his expertise the MTC even made a new rule: the winner one year is disqualified from competing the next. In 1977 Len came the closest an MTC driver has ever come to winning the International championship. He lost by one point out of 700, placing second. Someday we're sure an MTC driver will bring the championship trophy home.



Save the Buses.

Many MTC buses will not just be getting older — they'll be getting better. To save money and keep the fleet in top shape, the MTC is beginning an extensive bus rehabilitation and replacement program. By 1988, almost 400 buses will be either rejuvenated and their useful lives extended for another 10 years or replaced by new buses. The rehabilitated buses will be totally remanufactured — only the body shell and frame will be retained. The first of these rehabilitated buses will go back into service in 1985.

Busriders Trivia

1. What were the basic bus fares on January 1 in 1950, 1960, 1970 and 1980?
2. What are the major regional shopping centers, outside of the downtown area, that are served by the MTC?
3. Name the four suburbs the MTC serves that are furthest North, South, East and West from the downtown areas.
4. What do Midway Shopping Center and Th Lake Shopping Center have in common?
5. How many municipalities does the MTC serve?
6. Name the manufacturers of the standard size and articulated buses currently operated by the MTC.

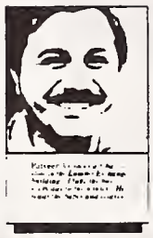
THE CITY SERVER 5

The Transit Tourist

by Robert Dubois

Take a tour along your local Route 5 and you'll find it delivers great service. There are hospitals, churches, a college, a shopping center, and the Minneapolis downtown—a hotbed of activity. The Route 5 bus can take you North from Bloomington all the way to Minneapolis and then on up to Brooklyn Park.

There's a lot to see and do along the way. The following list describes only a smattering of the possibilities. Discover more on your own. Ride the bus and tour the cities. (See the center map for locations of listed points of interest.)



Holy Emmanuel, Redemption and Atonement Lutheran Churches Route 5 begins (or ends) in Bloomington near these three churches. If you're Lutheran, you may find taking the bus to their services quite convenient.

Medical Centers Take the bus to a hospital for non-emergency treatments or to visit a relative or friend. Along Route 5 there are several: Abbott-Northwestern Hospital/Sister Kenny Institute, Mt. Sinai Hospital, Metropolitan Medical Center and Hennepin County Medical Center.

Minnehaha Creek Take a break from the tensions of the day. Walk along the famous creek that begins in Lake Minnetonka and ends in the Mississippi. Even in the Winter it's lovely and peaceful.

American Swedish Institute Visit this 33-room mansion with exhibits of Minnesota's Swedish heritage. It's open to the public. (Even Norwegians may find it entertaining.)

Downtown Minneapolis Your route 5 bus can take you to the heart of the city for shopping, dancing, eating or working. Visit Orchestra Hall, the Nicollet Mall, IDS or City Center, just to name a few.

Brookdale One of the larger suburban shopping centers, Brookdale is constantly updating its offerings. You can dine in one of the restaurants or buy a sweater at one of the many small boutiques. The diversity guarantees something for everyone.

North Hennepin Community College Consider taking a class in literature or drawing. Improve your math. You can do it all at this comfortable community college. Just take the bus to higher learning.

Tour the Twin Cities by bus, and find out what you've been missing. It all starts just beyond your doorstep.

SOUTH ROUTE 5 DESTINATION SIGNS	
TO:	TAKE:
56th Street & Chicago Avenue	5-B
104th Street and 3rd Avenue South	5-D
Hwy. 62 Frontage Rd. & 15th Ave. So.	5-G
Old Shakopee Rd. & 10 Ave. So.	5-H
Chicago Avenue and Lake Street	5-X

NORTH ROUTE 5 DESTINATION SIGNS	
TO:	TAKE:
44th & Fremont North via Fremont	5-A
47th & Osseo Road via Fremont	5-B
50th & Knox via Fremont	5-C
65th & Brooklyn Blvd. (including 63rd-65th Ave. loop) via Fremont	5-D
80th & Zane via Fremont	5-E
Sunday service to and from 80th & Zane	5-E
42nd & York No. via 7th St. & Penn Ave. No.	5-H
42nd & York No. via Glenwood Project & Penn Avenue North	5-J
North Hennepin Community College via Fremont	5-K
Brookdale Shopping Center	5-M

HOW TO RIDE THE BUS.

Fares

The easiest way to take care of your bus fare is to purchase The Passport Ⓣ. It will give you 6 rides for the price of 5 anywhere on the system.

But if you don't use the Passport Ⓣ, and prefer to pay each time you ride, remember you must pay with exact change. Fares vary with the zone and the time of day. If you ride the bus between 6-9 am and 3:30-6:30 pm* on weekdays, you'll pay 15¢ more than at other times.

If you travel from one zone to another, you will pay more than if you ride only within one zone.

The chart below shows you how much to pay during peak hours and off-peak hours in each zone. Take a look at the map to see where the zone boundaries are on your route; remember travelling to another zone costs more if you don't use the Passport Ⓣ.

Adult Fare.	Off Peak	*Peak
Rides completely within Zone 1	$ .60	$ .75
Rides Zone 1 to Zone 2	$ .75	$ .90
Rides Zone 1 to Zone 3	$ .90	$1.05
Rides Zone 1 to Zone 4	$1.00	$1.15
Rides taken completely outside the City Limits of Minneapolis or St. Paul	$ .60	$ .75

Special Fares

During peak hours everyone pays the usual adult fares. At all other times (including weekends and holidays) there are special rates for four groups of people.

- Senior Citizens 65 and older pay 10¢. Medicare card, MTC endorsed drivers license or state ID card required to qualify for the reduced fare.
- Persons 17 and younger pay 20¢, plus any applicable zone and express bus charges. Easy Rider ID Card required for persons 14-17 years.
- Disabled persons with MTC-ID card ride for 30¢.
- Children under 6 free (limit 3) when accompanied by paid adult fare. No time restrictions apply for this reduced fare.

Bus Information

For specific directions on how to get from any one place to another by bus, call the MTC Transit Information Center at 827-7733. (The hearing impaired may call the Transit Information Teletypewriter at 824-5202.)

This Digest contains all the information you need to ride your local bus. But if you want more information on other routes, you can pick up pocket-sized schedules at many businesses, banks and stores, including Town Square in St. Paul and the IDS Crystal Court in Minneapolis. Each bus driver can also give you a schedule for the route as you board the bus.

A Twin Cities Transit Guide, with a large map of the entire transit system, is also available. To buy one, contact the MTC at 221-0939.

You can catch an MTC bus on any corner or wherever you see the red Ⓣ sign. Often the route numbers of the buses that pass by the stop will be listed inside the bus shelter. If there is a bus shelter with a red Ⓣ on it, the schedules will also be posted inside.

If you have any comments on your bus service, just call the MTC at 827-4025. We want to make sure your bus-riding experience is always pleasant.

Send For Your Passport Ⓣ

And get 6 rides for the price of 5. Just fill in the coupon and mail it (or a copy) with a check or money order payable to:

MTC Passport Ⓣ Offer
801 American Center Building
160 East Kellogg Boulevard
St. Paul MN 55101

Please send me _____ Passport Ⓣ cards at $3.75 each (limit four cards per order).

Name _____

Address _____

City _____ State _____ Zip _____

North Street bridge in Minneapolis

ALONG ROUTE 5
ALONG ROUTE 5
THE CITY SERVER
Brooklyn Park
Brooklyn Center
Crystal
Minneapolis
Downtown Minneapolis
Downtown Minneapolis
Minneapolis
Richfield
Bloomington

TOUR THE TWIN CITIES.

Take a bus tour close to home. There's a lot to see even along your local route. (Isn't it funny how we always seem to miss what's right under our noses?)

Check out the museums and shops, the restaurants and shows. There's a lot to enjoy in and around the Twin Cities. And the MTC will take you there.

Check page 4 and the center map in this RIDER'S DIGEST for information on the sights to see and the things to do along your local bus route.

NICE GOING.

Metropolitan Transit Commission

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